THE MOTHER EARTH NEWS

- FORECAST THE WEATHER
- NATURAL PEST CONTROL
- HOW TO SELL PRODUCE
- SURVIVAL SEWING
- SELL YOUR PAINTINGS
- BE AN ANTIQUE PICKER
- HOMESTEAD IN ENGLAND
- BUILD WITH EARTH BLOCKS
- THE CHICKEN-POWERED CAR
- HOW TO PRESERVE FOOD
- A HOUSE THAT HEATS ITSELF
- BETTER GARDENS WITH MULCH
- THE ANARCHIST ECOLOGIST
- ECOTACTICS
- BICYCLE CAMPING
- ARKANSAS COMMUNE
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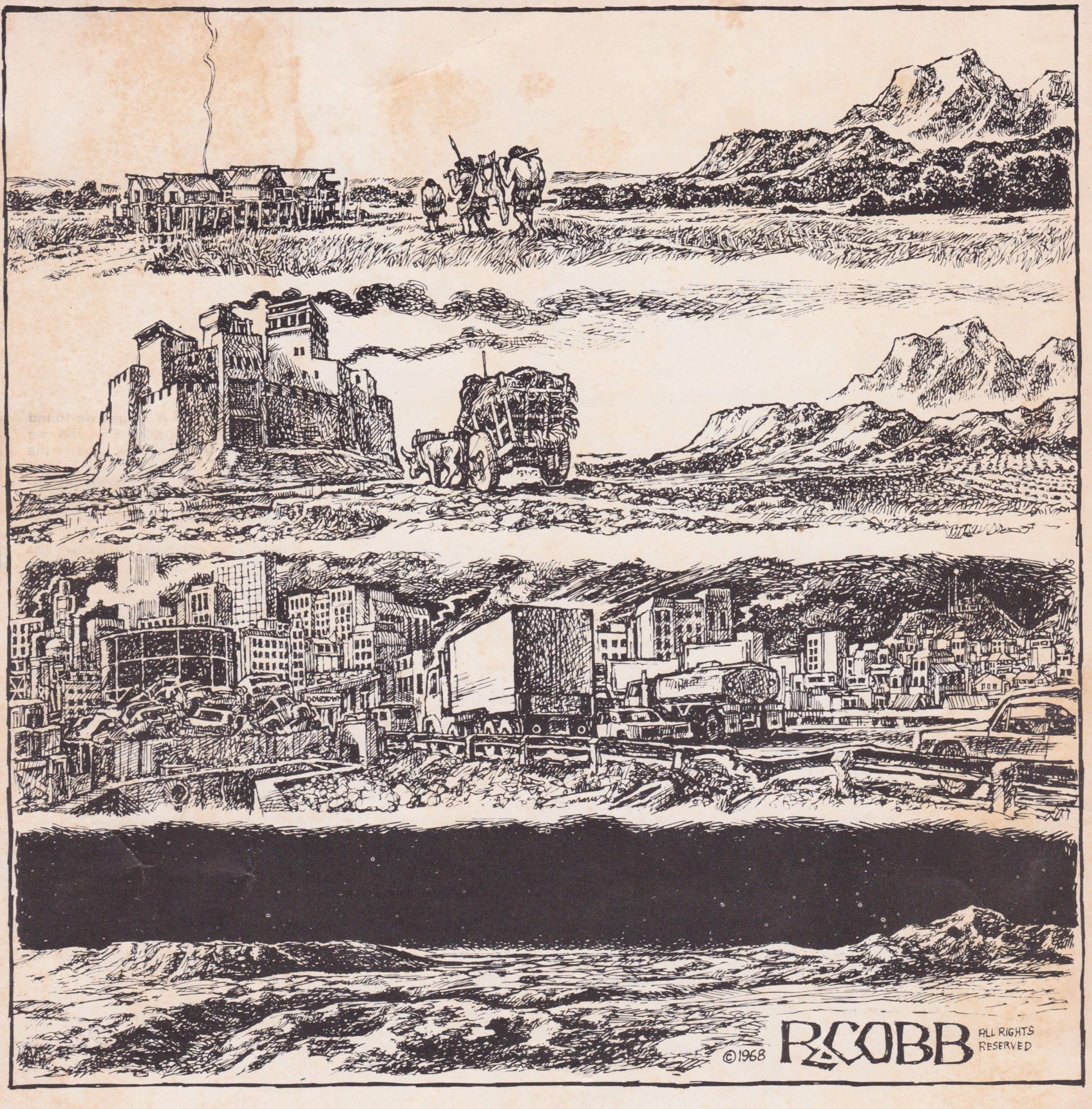

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MOVING? If you move (and an amazing number of MOTHER'S subscribers do, every month), you should know that the Post Office does NOT automatically forward magazines the way it forwards first class mail.

Instead, the P.O. destroys all undeliverable copies of MOTHER and returns the address label to us, COLLECT. This costs us both time and money that we do not have and wastes a perfectly good copy of MOTHER. In addition, when you finally realize that you're not where you used to be and you get around to letting us know, you (bless you!) always expect us to rush extra copies of all the issues the P.O. digested. And we're happy to do it.

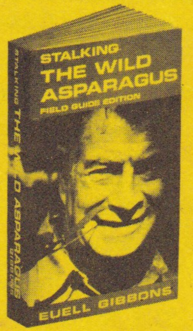
But from now on, if you miss any issues and it's your fault, the replacements will cost you regular back issue prices.

So, if you're moving, fill out the other side of this form and hustle it on in. We'll both be a lot happier!

THE MOTHER EARTH NEWS
P.O. Box 38
Madison, Ohio 44057

WILDCRAFTERS AND FORAGERS! MOTHER now has the field guide editions of Euell Gibbons three most popular books, STALKING THE WILD ASPARAGUS, STALKING THE BLUE-EYED SCALLOP and STALKING THE HEALTHFUL HERBS.

Identical in content to the hard cover versions, these three guides are small (4 1/4 x 7 1/8) and flexible enough to pack away in a knapsack or pocket. Each tells how to find, identify, gather and prepare hundreds of free-for-the-eating wild foods that are available everywhere. $2.95 each.



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Florence, Arizona

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Box 10233, Prichard Branch
Mobile, Alabama 36601

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Athens, Ohio

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For the nearest tannery, check your phone book . . . if you pay the owner a call, he may let you have a barrel for next to nothing.

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Manchester, N.H.

If you haven't seen it, a new book of poetry by Wendell Berry called FARMING: A HANDBOOK (Harcourt, 1970) might give you some good quiet moments.

Sue Downer
Rt. 1 Box 333
Olympia, Wash. 98502

You're right Sue! Wendell Berry has written some very moving prose too, such as THE LONG LEGGED HOUSE. All back-to-the-land folks should become acquainted with his work. It's a treat.—MOTHER.

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THANKS! THANKS! THANKS!

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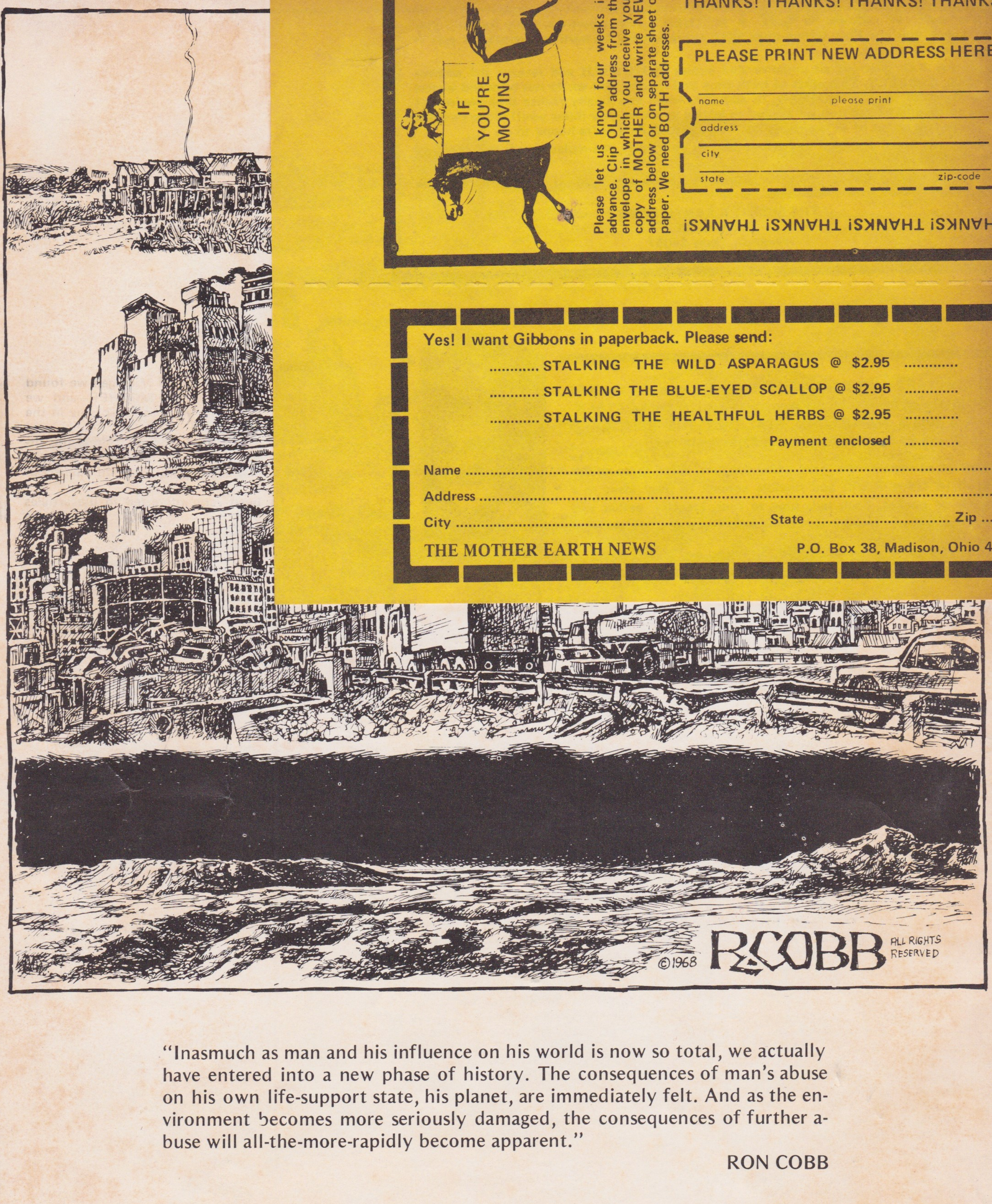

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DEAR MOTHER,

Cathy and I were turned on by MOTHER's article on the couple who had been forest fire look-outs. We really liked the idea of six months of paid isolation from our mass-everything existence . . . and now we're off to our watchtower (cum summer house) for our own first season as fire lookouts.

A new world has opened up to us because of this job . . . thanks for your encouragement and your wonderful publication.

John and Cathy Jeanes
Los Banos, Calif.

Seems that quite a number of young folks are working as fire lookouts this summer as a result of that piece. I'm pleased, of course, to have been of help.—MOTHER.

I just read your offer for lifetime subscriptions. Enclosed is my check . . . sign me up! I have enjoyed every issue so far and expect there will be more and more valuable info coming my way via your pages.

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The second issue of GOOD MEDICINE directed me to your magazine as a further source of information on natural living. I'm very anxious to get out into the woods (permanently) and would like to prepare myself and others who are interested in doing so. Now I'm trying to learn enough about wild plant foods to be able to make it out there. It seems difficult to find information on this subject.

Henry Robertson
Chicago Park, Calif.

That's why I run Jim Churchill's series, Henry, and why we handle the Gibbons and Angier books. Happy foraging.—MOTHER.

We just stumbled on MOTHER No. 4 in a one-horse town near San Diego . . . glomped on to it for the co-op articles as we're running a teeny two-month-old "food conspiracy" and we need all the help we can get; yours was fantastic.

Karey and Paul Kumli
San Mateo People's Co-operative
5 East 16th Ave.
San Mateo, Calif. 94402

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It seems that "Eskimos" have a similar problem . . . when the settlers first came to North America, the "Indians" introduced the white men to a group of people whom they called "Eskimos." Roughly translated, "Eskimo" means "eater of raw meat."

Nowadays the "Eskimos" are understandably indignant about the nick-name and wish to be called INNUIKS.

Do unto others . . .

Janet Wilson
Bownanville, Ontario

I find myself in an embarrasing position. My wife and I are supposed to be the freaks of both families, but on a recent visit to the Midlands of Michigan we found that my in-laws read MOTHER—and we don't, aside from an occasional issue in the (health food) store.

I've decided therefore to redress this situation and repair our injured self-concept and all that sort of crap . . . with a subscription.

I've been very interested in the articles that you have run about goats. We Meeks are currently doing dairy goats . . . milking two of the critters and loving them and their by-product. Their used and soiled bedding goes onto the compost heap; they are enriching the soil in their feedlot; and we not only drink their milk, but make bread therewith (with unbleached flour, of course . . . no bloody chemicals!) and are planning on making butter and cheese. Suffice it to say that we love our goats.

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(continued on next page)

MORE DEAR MOTHER,

(continued from preceding page)

I'm still reading and enjoying MOTHER No. 8 but Victor Croley's article, "Poke Sallet," says that poke weed berries are poisonous . . . my whole family has been eating them for years! My mother ate them to combat a nervous stomach (just two or three a day), and she lived to be 86. My sister carries them in her purse so she can have them with her when she needs them. I have a big bush that comes up every year outside my house, and I cut all the ripe berries off and let them dry for the winter.

Mrs. Wayne Fisher
Orwell, Ohio

In the face of all that evidence, Mrs. Fisher, I guess I HAVE to stand corrected . . . even though most of our sources say that the berries sure nuff are poisonous. Perhaps the secret lies in eating only two or three a day.—MOTHER.

Here's a travel-and-moving tip for folks headed east:

Hertz has 25-foot trucks, with enough room for you and a couple of non-materialistic friends, to drive from San Francisco to Washington D.C. for nothing. Hertz pays for gas, oil, and even repairs.

It seems that the westward movement has not expired . . . more people are moving west than east. So Hertz needs people to drive the trucks back home. They give you 12 days to do it, too.

Josie Henning
Dushore, Pa.

The geese flew north a long time ago . . . I thought my time would never come. But I've finally sold my house, quit my job and am packing and getting rid of things. My farm is now PAID UP . . . and I'm going. Over my old desk at work, I put the CANNED HEAT song, "Going Up To The Country." Hope everyone sees it.

I won't have much time to write for a while . . . there's the well to be fixed, the foundation to be repaired, and the gardening to be done. I'm also planning on some baby chicks.

By the way, about spinning wheels . . . building one from plans costs as much as buying one. Wood alone—you need hard wood—can run $30. Old spinning wheels are usually being sold as antiques and are totally unreasonable . . . most have parts missing. New ones in the U.S. sell for about $100. I bought one from Ashford in New Zealand for $30 delivered . . . but it takes five or six months. It's worth the wait, though; Mine spins beautifully . . . fine, coarse, whatever I want.

Ursala Schramm
(off to) Hurley, Wisconsin

This is a letter in celebration of Independence Day. I learned in school that George Washington founded a country that "held these truths to be self evident, that all men are created equal." And then I learned that George Washington held slaves. In school, I memorized the words of the Gettysburg Address and learned about Abe Lincoln's emancipation of the slaves in the Civil War. And then I learned that in that same war he imposed involuntary servitude—a draft to help coerce young men to fill the ranks.

Now I've been in college to help keep a II-S and so avoid a kind of involuntary servitude supposedly prohibited by the 13th Amendment. It seems to me that it's high time that we children and neophytes of the U.S. had the virtues of the constitution applied to us as a minority; we can't expect to survive and grow until we are free to evolve our own relationship to the world as we see it to be and not as we can best be exploited as GNP's of the present and for the future.

W.J.
Kansas City, Kansas

The call to the earth is strong, but we still feel some commitment to working within our urban community toward social change. One idea we've had is to research laws on what a community can do to claim empty lots for mini-parks or even community organic gardens. We'll let you know what we find out . . . meanwhile, got any info on the subject to help us out?

Zschiesche and Clark
San Diego, Calif.

No, I don't know anything about the legal end of this sort of thing . . . seems to us like the important thing is to just go ahead and DO IT. One Portland woman (we'll have an article on her soon) convinced the Oregon Highway Department, which was holding many lots in her black urban community for future highways, that the smartest thing it could do would be to allow her neighborhood to establish a garden project on those vacant lots until they were otherwise used. By the time things were really going, she'd rallied 250 juveniles and adults to raise gardens and had even managed to get the National Guard in to bulldoze the land—the same National Guard that had been there with bayonets the year before.

The only other thing I know of that's vaguely related to what you want to do is the Botanical Garden in Bronx Park, NYC. There kids between the ages of 9 and 16 pay $3.00 to do their own thing on a garden plot that's theirs to use from March to September.

So something CAN be done . . . let us know what you come up with.—MOTHER.

After years of buying nearly all my clothes and other miscellaneous items in Goodwill, thrift and nearly-new shops, I came across another source for obtaining shoes (and boots) for nothing or next to nothing. Lots of readers have probably already tried it, but while I was waiting in a local shoe repair shop to buy rawhide lace for moccasins, the thought occurred to me that surely there must be lots of people who forget (or simply don't want) to claim their repaired shoes. Sure enough! When I inquired, the manager showed me two big boxes chocked full of shoes—most of them weren't "stylish," but who cares? I found a pair that fit. The man said, "If you can use 'em, take 'em," so I did, and walked out with a nice pair of (repaired) shoes for FREE. I'm sure not all shoe repair shop owners or clerks would be so courteous, but it's worth a try—especially since shoes today (and not even well-made ones) seem to START at $20.00.

Joyce Latham
Durham, N.C.

We have a farm in Texas . . . small in comparison with the huge cattle ranches around us. We were wondering if others have had problems setting up a small ranch . . . also would appreciate some information on growing and harvesting grain.

Selma and Charles Lazar
Texline, Texas

I'm getting something together on grain, Selma and Charles . . . including tips on grain identification requested by some of our city readers. For now, you might want to take a look at the article on haymaking on a one-acre farm printed in the August issue of ORGANIC GARDENING (60 cents from Rodale Press, 33 East Minor St., Emmaus, Pa.)

Anybody got words of advice or encouragement for the Lazers on running a small ranch?—MOTHER.

Last summer when I still lived in Vermont, I saw something which bothered me. Everyone hit the road as the weather warmed . . . and many people headed for Vermont. What happened was that a whole group of fine, honest, loving older Vermonters were very much turned off to freaks because of kids ripping off small town libraries, general stores and gas stations. And their actions made it that much harder for us new-home folk trying to get along warmly with native Vermonters.

One amazing rationale was given by someone who went into a small store with me and took a bottle of cough medicine: "The owner is a capitlist pig and deserves to be ripped off." Somehow, the old man who waited on us in his tiny non-franchised store didn't seem to be a pig. Fighting capitalistic messes can also involve supporting hometown businesses.

Anyway, this summer Vermonters expect 50,000 people to drop in to enjoy their fresh air and clean living. If you're one of the 50,000, don't mess up the environment and don't mess up the people either, OK?

Pat Wagner
Milwaukee, Wis.

I'd like to learn about sheep farming . . . my interest is in sheep for their wool, not their hides or meat. I've heard its a dying art what with all the synthetic fibers cropping up. Are sheep farmers all going bankrupt? Are some surviving? If so, how? How much land is needed for raising sheep? Where's the market?

I don't expect you to do all my research for me, but maybe you could point me in the right direction.

Mike Ninde
Golden Eagle, Illinois

The July 1970 issue of FARM QUARTERLY—75 cents from 22 East 12th St., Cincinnati, Ohio 45210—carries a long article about a successful sheep operator out west. It answers a lot of questions.—MOTHER.

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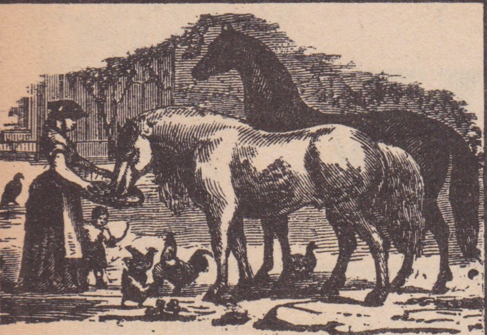
THE MOTHER EARTH NEWS
...it tells you how

NO. 10 **JULY 1971**



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WITH A LITTLE HELP FROM

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Contributions of articles and photographs are invited and will be gratefully acknowledged. Manuscripts and photos can be returned if accompanied by return postage.

THE MOTHER EARTH NEWS is a member of the Underground Press Syndicate, National Advertising Representative: UPS Ad Rep Co., Box 26, Village P.O., New York, N.Y. 10014.

Second-class postage paid at Madison, Ohio.

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EDITORIAL AND SUBSCRIPTION OFFICES
P.O. Box 38, Madison, Ohio 44057
(216) 428-4090

Single copy price/$1.35. Special issues at special prices. One year (6 issues)/$6.00. Two years (12 issues)/$11.00.

Publication schedule: January, March, May, July, September, November.

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THE PLOWBOY INTERVIEW

Almost as soon as Little Jane and I started MOTHER, *we began getting excited messages from folks all over the country: "Do you know about Murray Bookchin?" "Have you read Bookchin?" "Here's a pamphlet by Murray Bookchin, the anarchist ecologist" or simply, "Read Bookchin".*

Naturally–being blessed with an open, inquiring mind and recognizing a good thing when so many levelheaded people pointed it out–I . . . steadfastly . . . ignored . . . Murray . . . Bookchin. I mean, I had the usual idiotic idea that anarchists were people with bushy, black beards and Molotov cocktails.

And then magnificent, warm Len Krimmerman invited me up to the University of Connecticut as a resource person for an alternatives-in-living conference . . . and Murray had received a like invitation . . . and he was there . . . and my mind was boggled and my heart won.

Murray Bookchin is one of the warmest, most thoughtful and sensible men I've ever met. Under the pen name of Lewis Herber, he's been writing about ecology more years than some of today's staunchest environmentalists are old . . . and Murray isn't that old himself (only 50). This is a man, in other words, with vision far into the future.

Murray has published four books–two on ecology–under his pen name. The ecology titles are OUR SYNTHETIC ENVIRONMENT *and* CRISIS IN OUR CITIES. *Bookchin's fifth book (this time under his real name),* POST-SCARCITY ANARCHISM, *has just been released by Ramparts Press.*

Bookchin has taught ecology and now travels widely to speak on ecological, environmental and social problems at universities across the country. If your college hasn't booked Murray, bug someone till they do . . . he's worth it.

PLOWBOY: How long have you been interested in and working on environmental problems?

BOOKCHIN: My own interest in ecology dates back to the early 1950's. At that time a few people–numerically large, but still a definite minority of the literati population of the United States–became very much concerned about what was happening to the environment. We suddenly became aware, in the 50's, of the dramatic changes that were–and are still–being wrought in the world.

Since the end of the Second World War, there have been changes on a scale that are simply phenomenal by comparison with previous periods . . .

PLOWBOY: And terrifying.

BOOKCHIN: They *are* terrifying. A second industrial–a *third* industrial revolution, actually–was taking place at that time. Expansion of the cities, destruction of farmland, encroachment of suburbia on formerly agricultural areas.

A second problem that was becoming very compounded twenty years ago was the change in the diet that people were being exposed to. Chemicalization of the diet, particularly by DDT and other pesticides, was first coming under critical scrutiny at that point. There were hearings being held in Washington–the famous Delaney Committee hearings–and I got hold of a transcript of those hearings and found that the problems examined by the committee reflected my own discontent about the issue.

I was also greatly influenced by a German, Josef Weber. Weber, with an entirely different background–a south German background–pointed out these issues with a number of clarifying remarks and inspired me to start writing about ecological problems in 1952. I've more or less continued since then.

PLOWBOY: That was a long time before the general public became concerned about the environment.

BOOKCHIN: Yes. Even as late as 1965, I was active with a group of anarchists on New York City's lower East Side. We used the slogan, "Community, Anarchy, Ecology" . . . and everyone understood everything but the last word. You had to explain it *(short laugh)* to people.

Now, of course, the esoteric issue–ecology–of 1965 has become the critical and very familiar social problem of today . . . and this impresses me. It impresses me that we are passing from the question of ecology as an issue to a state of ecological outlook. Ecology is no longer an idea, it is a very real concern. For the first time, it involves people on a public scale . . . and, collectively, we're developing an ecological point of view.

Ecology has always been an issue, you know, but under a different name. In the 1930's, the famous Schlink book, *A Hundred Million Guinea Pigs,* went through one edition after another.

PLOWBOY: I don't know that book.

BOOKCHIN: It was very famous in the thirties. Callett and

Schlink wrote what was essentially a pharmacopoeia of the toxicants that then appeared in food and drugs. The book had a powerful impact. It must have gone through thirty or more printings and was partly responsible for the formation of the consumer movement in the 1930's . . . of which Consumer's Research and Consumer's Union are examples.

The problem at that time was essentially considered to be a form of pollution that could be remedied by Congressional action . . . by a kind of New Deal for the consumer. People were not that occupied with the environment as a whole. There were a few lonely voices—Lewis Mumford's was one—but people were not that occupied with the environment. They were concerned with poisons that were coming to them through food and drugs . . . and they were occupied with changing that situation by legislative means.

So much was taken for granted then that was totally wrong. The people of that time didn't have an ecological outlook. They didn't interpret the problem in terms of the balance of nature and their relationship with the natural world.

PLOWBOY: And that set us up for bigger problems.

BOOKCHIN: Yes. And those problems grew throughout the late 40's and all through the 50's and the 60's until, today, we're no longer dealing with a number of isolated forms of pollution in foods or in drugs or in the air or whatever. We're dealing with a distortion of the natural cycles. We're dealing with the carbon cycle . . . with the nitrogen cycle . . . with *distortions* in the very way in which the natural world is put together. And this, finally, is ecology and—at long last—we recognize that fact.

Now the question that faces us is whether or not we can develop a *society* that will be ecologically sound. We're learning that we can no longer deal with nature as a separate entity apart from our own social lives. We're also learning that we must develop an attitude as well as a social relationship toward nature . . . and this means we must develop a new attitude toward each other. We must develop an *ecological* interpretation of society . . . and, for Western man, this is an enormous undertaking. We shall have to recast our thinking—our mental apparatus—recast our emotional apparatus and, in new ways, fulfill new possibilities within ourselves intellectually and spiritually.

PLOWBOY: As the Vocations for Social Change people say, "All we want is to change the world completely." Granted that it may be necessary . . . it won't be easy. Do we have any precedent for such a plunge?

BOOKCHIN: I believe that we are coming to grips with the problem of nature today in somewhat the same sense that early humanity did when it broke away from the tribal forms—when it left the garden, so to speak—and began to move into a propertied, hierarchical type of civilization.

Now, so-called primitive society was a unified whole . . . but it was a very simplified unified whole. Custom had to prevail because life was very precarious. Such a society produced a more all-rounded being but a being more limited in terms of the facets that could be developed. The emergence of hierarchy split this early tribal unity. Hierarchy opposed, first of all, men to women . . . it shattered the parity between the sexes . . . and led to a form of oppression of women that wasn't even exploitative in all cases although it contained exploitative relationships.

Exploitation, you know, is a subset of oppression. There's a bigger domain of oppression that took place even before exploitation. A most striking example is the subjugation of women and children . . . which increasingly crystallized into exploitation only after the original subjugation.

Women, you see, were placed on a different status. Even if they were pampered and given the comforts of life, they were degraded as human beings . . . they became objects. They may not even have become instruments of material exploitation, although they were that too . . . but the most important thing that happened was that they were reduced to objects.

And then on top of that first split, a second split took place. People were opposed to people. Classes began to replace kinship ties.

And yet a third split from the unity of humanity with nature and human beings with each other took place with the emergence of the town. This emergence first began very delicately with the town more or less in subordination to the countryside . . . next in balance with the countryside . . . and, finally, with the modern industrial city and the modern commercial city supremely opposed and placed on a hierarchical relationship in a dominant position over the countryside. And now we have an urbanized civilization.

And last, we have the emergence of the state . . . which not only opposed a political apparatus to community, but which *shattered* community, using the city as its playground as it were . . . as its medium for development. And the state eventually reached a point where it reduced everybody to a functionary.

The word *citoyen*—citizen—the classic word of the French Revolution, which replaced the word "brother" in the medieval town, has now disappeared and has even lost its meaning

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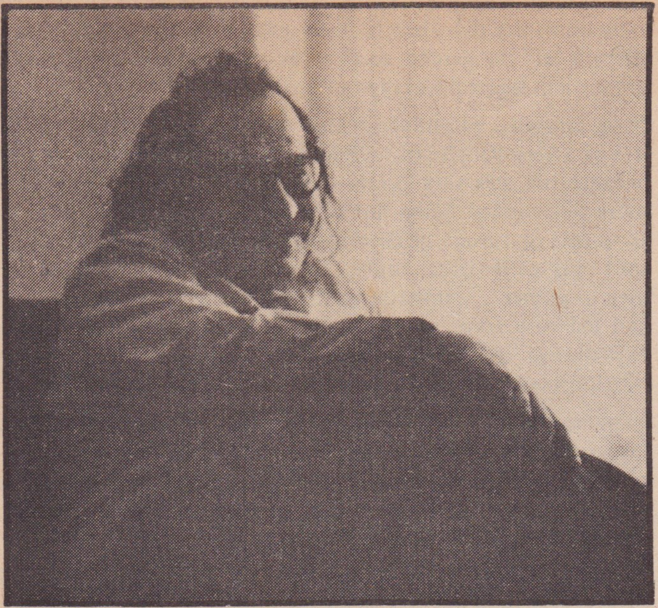

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. . . and now everybody is really an employee *(laugh)* of the state.

The concept that people today—in an era of state capitalism when the state has become supreme—are autonomous human beings is ridiculous in the traditional bourgeoise interpretation of individual sovereignty. What you have now is everyone reduced to a functionary.

PLOWBOY: And now we have to overcome the splits?

BOOKCHIN: The splits have to be healed. This is the great theme—ecological theme—of our time. We must overcome the splits, do away with classes and end exploitation—and not just exploitation but oppression—in everything and every form. The oppression of man by man, woman by man, child by adult, countryside by city has to be eliminated.

A new integration—in the form, I believe, of a polis—has to take place between town and country. The conflicts between humanity and nature, between mind and sensuousness, between reason and feeling . . . these conflicts now must *be* transcended. We must weave a new tapestry of life that contains the richness of all our past experiences.

And this is what I would call social ecology. This transcending of the splits is what I'd define as social ecology. We must use ecology both as a science and an art *(laugh)* so that we can artistically mold a new way of life in which human reason becomes an expression of blind nature *(chuckle),* you see . . . and leads to a new relationship between human beings and between the society and the natural world.

This is a concept of transcendence. It's not a concept of "going back", it's not a concept of elaborating what exists. It's a concept—in the real Hegelian sense—of *aufheven,* of going beyond: to annul, to incorporate and to transcend . . . simultaneously. Just as childhood is transcended—not abolished—but incorporated into the human psyche.

PLOWBOY: . . . the best of all possible worlds.

BOOKCHIN: I want all that is vital and all that has really been a gain for human beings to be incorporated into a new type of society.

Now this, again, entails an ecological point of view. Ecology has become more than a standing critique of the existing society . . . it's become the source of guidelines for Utopia. Utopia is no longer merely visionary . . . it's no longer merely a dream. I think we are approaching a condition in which technology will allow us to live in security. A condition in which we can all get the means of life without having to live in a desert of toil.

And when we do reduce toil to the near vanishing point, we will leave our powers free for creative forms of productive activity. The word "work" will acquire a new dimension: it will no longer be onerous labor . . . it will be joyous and pleasurable labor. We will begin to think in terms of life instead of merely survival.

So in a sense, we have bitten the apple *(laugh)* as Eve did. We've bitten the apple of sin—or knowledge, if you like—and we've had to swallow it to get rid of it . . . to remove it from the Garden of Eden. And now we have assimilated that knowledge and we can, in a sense, return to Utopia and the Garden . . . no longer as primitives but with the full richness of whatever knowledge so-called "civilization" has had to offer us.

PLOWBOY: And, ideally, we'll use that knowledge to build a new way of life that has no hierarchies and no oppression.

BOOKCHIN: We must. Because these "evils"—and I put quotations around that word—these "evils" are now manifestly evil. Hierarchy is no longer a basis of stabilization as it may have been at some times during our transition. The state no longer plays a role of maintaining, quote, law and order, unquote. The state, in fact, is now the greatest source of lawlessness and *disorder.*

The city, which played such a vital function in bringing people together and creating a common material cultural tradition, has now exploded into the megalopolis . . . and one no longer goes to the city to find people, you see, one goes to the city to *hide out* from people.

All the institutions that once played a consolatory role are now playing a totally negative role in respect to people, in respect to society and in respect to nature.

One could at least say that there was, by the peasantry, a stabilization of the soil of Europe during the Middle Ages. A forest land, which wasn't very suitable for agriculture, was—over a long period of time, and particularly in the last few centuries—really artistically cultivated into a matrix for *more* life rather than less life.

But we now find that all the institutions which have played some role in creating material security that the primitives did not have . . . all these institutions have now reached their limits and are devastating nature.

PLOWBOY: So we must begin again.

BOOKCHIN: We must form a new culture . . . but a culture based on elements which existed thousands of years before hierarchical and propertied society emerged. And this new culture must get its material, in part, from attitudes of people like the Hopi. It must get its attitudes, even, from the East.

We must learn a new attitude toward experience so that, when we look at differences, we don't think of them in terms of hierarchy but recognize their integrity as differences. This involves an appreciation of diversity and a respect for diversity. Our typical Western attitude—a product of Capitalism, a product of propertied society and a product of hierarchy—is to hierarchize differences. We tend to place differences only in relationships of superior and inferior.

This is not a traditional attitude of humanity. The Hopi Indians, at least, traditionally did not have that attitude. They recognized that uniqueness has to be respected for itself. That, in fact, and this is a very important ecological concept: the more, the richer. The more parts that make up a unity, the richer that unity becomes.

The whole history of animal evolution has been a colonization of the earth through variety, through mutation and through an extension of the world of life. Our evolutionary history has been a history of greater and greater diversification. The foundation of ecology rests on the concept that a more complex food chain and a more complex environment creates a more stable balance.

If you simplify an environment, you create the basis for tremendous dislocations. A system of monoculture–say, nothing but rye or nothing but wheat–becomes perfect prey for pest infestations or for a single fungus that attacks that crop.

PLOWBOY: Like the blight now wiping out so much hybrid corn in the midwest.

BOOKCHIN: Exactly. So equilibrium is a function of complexity and we're returning to the biological problem that was a central issue thousands of years ago in the neolitic world. This problem was essentially forgotten for a long period of time but now we have no way of ignoring it.

What has happened is that we've created a tremendously synthetic environment. We interrupted and shattered–not only complex food chains–but complex social relationships. We've simplified them. The IBM card is our image . . . the paradigm of that simplification. And this simplified paradigm of the human being merely reflects the simplification of human experience today.

Now we have to go back to a more complex type of society. We must go back to richer and more all-rounded human relationships. We need a more all-rounded personality.

The Greek ideal of the amateur in *all* things *(chuckle)* is a beautiful idea. I'm not suggesting that this is the paradigm for a new human personality, but it is a recognition that people and personalities and selves are complex and that all-roundedness is to be encouraged. Not the specialized personality created by the division of labor, as we find today. You know, the brawny worker with the unseeing eyes or the over-cerebrated intellectual with no sensibility and no sensuousness.

The mind opposed to sensuousness is *our* concept . . . our typically Western concept . . . and it leads us to oppose the intellect to the body, the individual to society, the town to the country.

PLOWBOY: So we need a new approach.

BOOKCHIN: Yes. In the case of the city, we must realize that the modern city has exhausted its possibilities. If we're going to have an ecological society we have to be serious about it and we have to decentralize our cities. But that doesn't mean that we all just disappear into little isolated farms with fences between us.

We must develop a new balance between town and country–a new polis–which goes beyond both town and country. I would call this new polis an ecological community or eco-community and I envision such communities nestling in the eco-systems in which they are located. The communities should be tailored artistically to the physiography of their surroundings . . . to the hydrology and the flora and fauna of their surroundings. Modes of food cultivation and forms of industry would be combined with diversity in technology so that we don't have one or two sources of energy, but five or six in a balanced, harmonious energy relationship.

If we consider just the projected energy pattern of one of these eco-communities, you'll get an idea of what this diversity means. We would use solar energy everywhere but we wouldn't take the idiotic attitude that all our power *has* to come from the sun. That's the kind of argument one gets from Erlich and it's a self-refuting argument.

Obviously we would use fossil fuel . . . we might even use nuclear fuel . . . but we would use both in a judicious manner and in balance with other sources of power: wind power, geothermal energy where it is available, hydroelectric power, tidal power and other fuel sources . . . including those that are yet to be discovered. But we would use no one source exclusively and we would, in all cases, take extreme care not to undermine the eco-system.

PLOWBOY: How large do you envision such a community?

BOOKCHIN: The community would be on a human scale. By that, I don't mean ten people . . . but, nevertheless, it would still be relatively small. It would be an arena in which groups of people could establish real, unalienated relationships. The community might number 10,000 . . . it might number 20,000 if the carrying capacity of the eco-system permits.

Such communities could interrelate, using common resources. Perhaps they would federate and work out new forms of institutional and social organization.

So, you see, my concept of decentralism is–on one side–not to scatter people across the country and–on the other side–does not include the idea of the gigantic cities we have today.

PLOWBOY: How do your ideas agree with those of Buckminster Fuller?

BOOKCHIN: I have profound disagreements with Fuller. Although I feel that Fuller is very well intentioned and I believe that Fuller would like to regard himself as an ecologist, my feeling–nonetheless–is that Fuller is essentially an extension of the present industrial system. I think that he represents its most *colorful* extension . . . its most imaginative extension. There's no getting away from that. But his premises are not organic . . . they're electronic *(chuckle)*. They're not dialectical, they're a form of mathematical and formal logic.

I would never call ecology a "world game". The expression and thought comes–not simply from children's gamesmanship–it comes out of military gamesmanship. This is the language of the Rand Corporation. I'm not suggesting by this that Fuller is a tool or anything else of the Rand Corporation . . . but I think that he does have a common mentality with them.

Fuller has ideas of rational stockpiling, as it were, and there's something inorganic about this. One can put into Fuller's system a tremendous skyscraper that will theoretically house one million people. That is not my notion because, in this case, one million people in any given small space cannot relate. With all the beautiful means of communication available today, the only really human form of communication remains face-to-face communication . . . and an individual simply cannot come face-to-face, and relate with a community of one million people.

PLOWBOY: An important key to your vision of eco-communities, then, is human scale.

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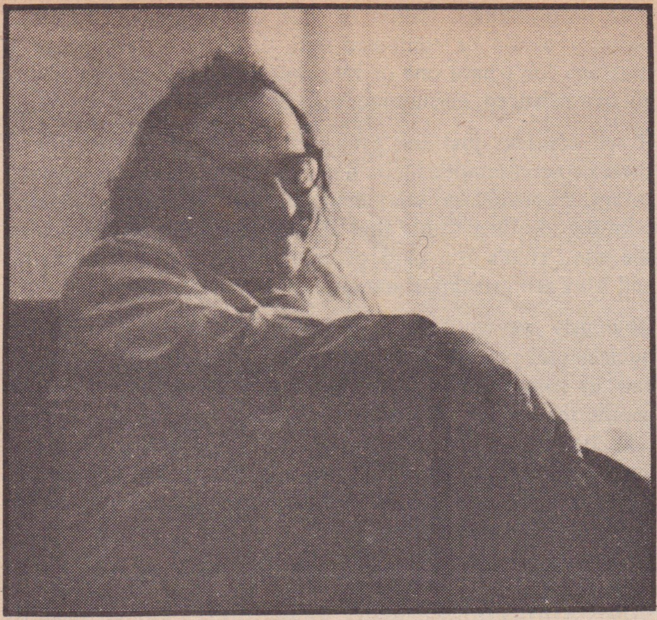

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BOOKCHIN: Yes. We must develop a flexible technology that will serve us on a human scale . . . and that technology must be based on diversification of resources.

There is a great deal of iron ore lying around, for example, that cannot be used today because industry does not operate on a small scale. There are a large number of technologies that are not employed today because they do not fit into the corporate system of industrial giganticism that prevails in the United States. Instead we centralize our technology, ignore local resources, and plunder the heaviest concentrations of iron ore and other resources. We move into a small area, lay waste, pollute on a massive scale and leave behind horrifying scars on the land in order to feed immense industrial complexes. The penalty we pay—and that the earth pays—under such a system is terrible.

Whereas, if we had a decentralized technology; whereas, if human needs changed and became more humanistic and were not manufactured to a large extent by the advertising industry and the media . . . we would make less and make it to last. Quality would replace quantity and, with it, exploitation.

Vehicles—whatever vehicles we decide we're going to utilize—would be made to last a generation instead of five or six years. And when those vehicles *did* wear out, they would be recycled instead of just dumped.

Production of military goods would be simply eliminated and, with that, the utilization of immense resources for a wasteful and literally destructive purpose.

And so—with a new balance between need and resources followed by high-quality production of goods that are made to last and a recovery and reuse of materials . . . with a new, flexible technology and a diversity of energy resources—one can see a truly beautiful balance between community and environment. One can see the disappearance of the despoliation.

PLOWBOY: And what would happen to people who lived in such a community?

BOOKCHIN: With the basis for hierarchy eliminated, the individual would no longer be occupied primarily with creating a personal niche for himself. A truly communal form of society would be created . . . and this would result in a population decline simply because people want to *live* . . . because the *lure* of *life* is greater than the lure of the self-enclosed nuclear family which produces four, five or six children in order to create its own community.

PLOWBOY: You actually foresee a decline in population when and if we adopt the eco-community concept?

BOOKCHIN: Yes. Every one of the factors that make for increased population is really a social factor. Population expansion or contraction depends upon the status of women . . . the status of children in the society. It depends upon the attitudes of men and upon the nature of the family that exists.

In other words, population growth and population decline do not take place in a vacuum. The tendency of men like Ehrlich to deal with population as though it were merely a numbers game is as ridiculous as trying to deal with war as merely military tactics. Everybody knows today that war is really an extension of social policy by force . . . and unless you deal with the social policy, you cannot understand the war. Similarly, you cannot understand population growth or decline without dealing with the society which promotes or inhibits these developments.

I think that there are social controls inside the individual . . . and these controls can lead to a balanced population once we have a balanced society. Women's liberation alone could open immense vistas in population control simply because women don't want to remain—and rightly so—one-dimensional reproduction faculties. A new attitude toward children would also result in changes in the demographic factors that influence population trends.

PLOWBOY: What other changes in life style and outlook would you expect people in an eco-community to exhibit?

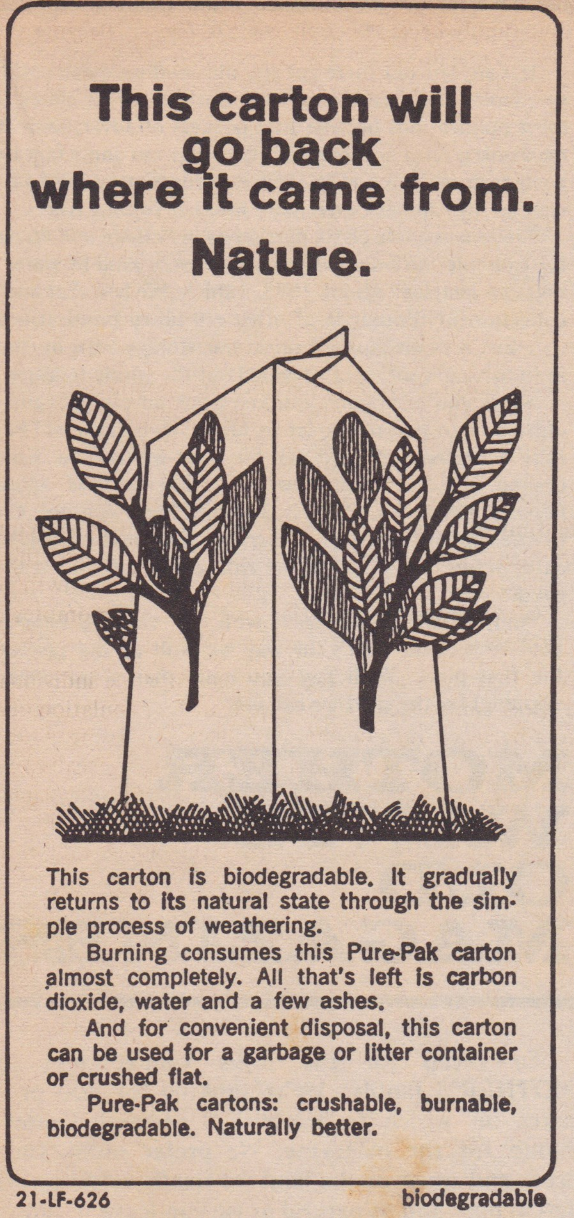
BOOKCHIN: I think you would find a restoration of crafts. People would finish the products they get to their own liking. There would be more expression of individuality in the things that people use. For that matter, there would be more individuality of expression in all facets of life as we learned to respect difference for its own sake.

We would think more in terms of humanity—I prefer that to the word "man"—and of all living things and all inanimate things being mutually interdependent and in balanced harmony with each other. We would no longer think in terms of "superior" and "inferior" . . . we would no longer describe experience in hierarchical terms.

And the thing I submit is that, years ago, this was regarded as a dream—a noble ideal—impossible of achievement. Then, with the industrial revolution, it became increasingly possible and all kinds of movements began to try to actualize this dream. And now, it's become necessary *(laugh)* . . . it just has become necessary.

If we don't develop these attitudes, we don't survive. It's not a question of whether we're going to get a good society or not . . . we just won't survive. And that element of necessity has entered into the element of choice, so to speak, and we now have a real dialectical interrelationship . . . a total reversal of values.

If we do not develop in ourselves the attitudes—however embryonic and however unsatisfactory as yet they may be—we will not survive. And nothing has brought this more dramatically to the forefront than the ecological issue, because nature will not endure an anti-ecological society. We have to be beautiful in order to just simply exist. That's the sense of it.



This carton will go back where it came from. Nature.

This carton is biodegradable. It gradually returns to its natural state through the simple process of weathering.

Burning consumes this Pure-Pak carton almost completely. All that's left is carbon dioxide, water and a few ashes.

And for convenient disposal, this carton can be used for a garbage or litter container or crushed flat.

Pure-Pak cartons: crushable, burnable, biodegradable. Naturally better.

21-LF-626 biodegradable

ECO-PORN

CHUCK WORTH

FREE PRESS OF LOUISVILLE/1438 S.
First Street/Louisville, Kentucky 40208

The interesting little panel sharing this page is brought to you, free of charge, by Oscar Ewing who uses it to decorate an otherwise uninformational side of his half-gallon milk carton. He hopes it will help you to buy his milk. The environment would hope (if it could hope, which it can't) that it would help you to bypass the product. The carton tells only the truth, but its message is a lie.

Let me describe the carton. It is made of sulfite pulp. The manufacturing process of sulfite pulp is so destructive to the environment that any such site can always be seen for 25 miles and smelled for 50. The next time you see a plant belching stinking steam—staining a river yellow with its "effluent by-products"—ten to one it has something to do with sulfite pulp. The process contributes 13% of our nation's direct water pollution. In some areas, it contributes 45% of "subjective discomfort" air pollution (it stinks). Related procedures, dependant on sulfite pulp, contribute 80% of all mercury pollution.

Contrary to public opinion, the manufacturers are not greedy, grasping, money-hungry monsters. No, they are actually dedicated, concerned, aware blunderers, just like you or me (or was it "your dad and mine"?). From reading their literature, you learn that the pulp manufacturers have spent their lives, their fortunes, and their good health trying to find a solution to the pollution their vital products produce. Since our eyes and our noses tell us they have not solved the problem, we must reduce (or not increase) the use of sulfite pulp if we want to reduce air and water pollution.

Because it is made of sulfite pulp, the carton is not something we really want in our homes. It is clear that the carton can only contain milk. When it does not contain milk, it is waste. Solid waste. The pulp fibers that this carton contains have been treated with polymers to resist water, and water is the basis of life. The carton is designed to be broken up by the forces of nature, but not by life.

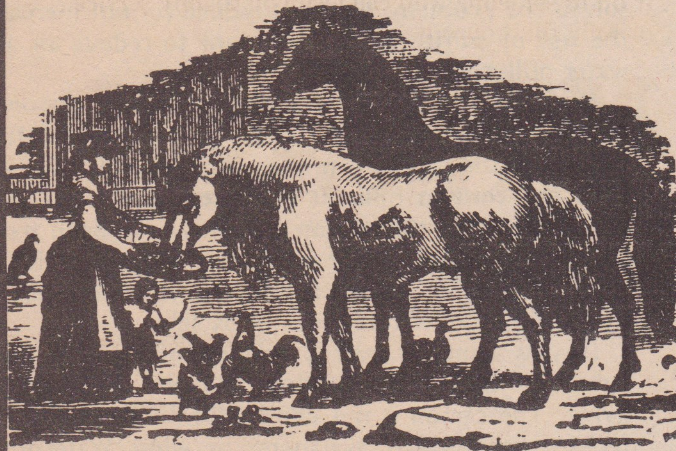
If you want to destroy this carton use fire, sunlight and time. Lots of time. Do not use anything living. The carton is not edible. Don't—for that matter—use earthquake, avalanche, or wind. Waterproof milk cartons are usually the only recognizable items left after tornadoes or earthquakes. In the sense of Ewing's ad, everything is biodegradable . . . but this carton is *very* low on the list.

Our nation has attempted to solve the problems of solid waste, it has failed and we are in danger of drowning in our own waste. It is now time to recognize that used, worthless material is poison. Since we cannot dispose of it safely, we must therefore stop making this mistake of convenience. We must reuse everything. Our technology must be based on forever bringing forth the new from the old. We can not afford technologic waste; we must recycle.

What should you do to respond to this obscene ad? Buy your milk in glass containers (Ehrler's and Haywood's dairy stores carry them). Take the bottles back to be recycled. If you can't get to the dairy store, get a glass bottle and at the checkout stand, pour the milk from the carton into your bottle. Tell the nice man why you are leaving the pornographic, biodegradable carton behind.

The user (that's you!) is the only force that can change the direction of America. You must make the choice for all of the future of man. We are living in the last moments of decision: 5 minutes 'til twelve. If you choose life, do not use products that generate waste. Demand your right to live, and recycle.

NEWS FROM MOTHER



Has anyone out there got any old—and we mean *really* old—mechanics and farm magazines? Back in earlier times, before most publications became thin packets of advertisements, the mechanics, farm and science magazines ran some fantastically good features . . . and MOTHER needs that material for reference so she can pack even more into her coming issues.

There was a five or six part series in *Science and Mechanics*, for example, on building just about every kind of water wheel you can imagine. About 1935, I think. We had that and a rich collection of thousands of other old-timey publications once . . . but a drain plugged up in our storage barn on the farm in Indiana and spring rains wiped out the whole treasure trove.

So, if you or anyone you know has—or can get—any of the older how-to magazines, let us know. Donations will be gratefully accepted and we'll pay for what we have to. Especially desired are *Mechanix Illustrated, Science and Mechanics, Popular Mechanics, Popular Science, Farm Journal, Country Gentlemen and Scientific American.* We most especially want dates *before* 1950 . . . but we ain't gonna turn down anything good.

And, HEY! all you folks who are recycling paper! Keep your eyes open. That's the way we built up our collection in the first place. We'll pay you more than scrap prices (plus shipping) for the stuff we can use.

MOTHER WANTS OLD MAGAZINES

OK, gang, Here's the latest on the Big Move to MOTHER'S RESEARCH CENTER. Since running the announcement in NO. 9, we've gotten some really favorable response from state offices and private individuals in North Carolina, Tennessee, Kentucky, Virginia, West Virginia, Oklahoma, Louisiana, Missouri, South Dakota, Oregon and other points in between. We're still open to offers.

MOTHER'S RESEARCH CENTER

To recap for the folks who've just joined MOTHER'S family: We're looking for 400 or more acres on which to establish a research center and home for the magazine. We prefer mountains and trees and most of the land we finally settle on will be left as pure and as natural as we can leave it. No roads, no Howard Johnson's-Disneyland-type "developments". Along one edge of this tract, we'll build a small community . . . houses of natural materials and a little homestead-size research complex.

And in this research community we'll set up some pilot methane generators and solar-power experiments and recycle some of the throw-away society into what we hope will be more useful and more ecologically-sound items.

Now, please don't get the idea that we think we know any more than anyone else. We're not going into this with anything to "prove". But it does seem to be time for someone to quit talking about ecology, environment and new life styles . . . and to start making an honest attempt to find and devise new and more harmonious ways of living and relating to the planet. We've swallowed hard and decided to be that *someone.* We're looking for all the ideas and help we can get.

A BLATANT APPEAL FOR HELP

From a standing start of exactly nothing two years ago, MOTHER ain't done bad. We keep all the bills paid, we have not knowingly cheated anyone on anything and we now have a good stock of back issues and books on hand. When we stop and think about all the New Life publications that have been launched (some with as much as $500,000) since we began . . . and which aren't around anymore . . . well, we feel mighty grateful.

It would certainly be nice if we could feel complacent too . . . but we can't. The past two years have only opened our eyes to the hard times which are coming to this old planet. I don't mean to alarm anyone by that statement . . . but if you project the population trend and the curve of rising expectations and the graph of industrialization and factory farming onto a chart of existing known resources . . . there's a bad squeeze coming and coming soon.

That's why we're anxious to set up a research center, of course, and that's why we're asking for help. We're still little and the job is big and we need some muscle to help us swing that research center. In short, we need money.

But hold on a minute! We're not asking for a handout. We have something entirely different in mind. Last issue, kind of as a lark, we printed a letter in Dear Mother . . . and that letter asked if we sold life subscriptions to the magazine. "No," we said, "but we will for $100". And danged if that offhand answer hasn't pulled in two lifetime subscribers already!

So, if you'd like to make some dollars do triple duty, here's the deal: printing and postage have been raised on us since last issue and a life subscription is now $120. Send us that amount and you'll (1) assure yourself of receiving continually bigger and better MOTHERS from now on, (2) make the magazine a whole lot stronger and (3) help us finance that research center which, we hope, will be worth an awful lot to us all. That's pretty good mileage for U.S. currency these days.

In return for your contribution (and $120 in front, we know, is a heavy contribution for many MOTHER people) you'll receive: (1) MOTHER forever and ever, (2) Recognition—unless you request otherwise—in the magazine, (3) A genuine Certificate Of Thanks from MOTHER, (4) Your name listed—unless you request otherwise—permanently as one of the *People Who Made This Research Center Possible* at the center itself and (5) The satisfaction of having been part of, we hope, Something That Counts.

How's that for a "Can't Lose" proposition for everyone concerned? You get *your* money's worth . . . MOTHER gets *her* money's worth . . . and every small development and breakthrough made at the center gives the planet *its* money's worth.

MORE ON HAROLD BATE

Chances are, the visit to Harold Bate in this issue will inspire some folks to experiment with methane on their own and others to want to order the Bate converter. But from where? We get word that others who've bought direct from Bate have had some difficulty understanding the instructions . . . and EARTH MOVE, the U.S. importer of the Bate kit, seems rather behind on orders (we're still waiting after two months for ours).

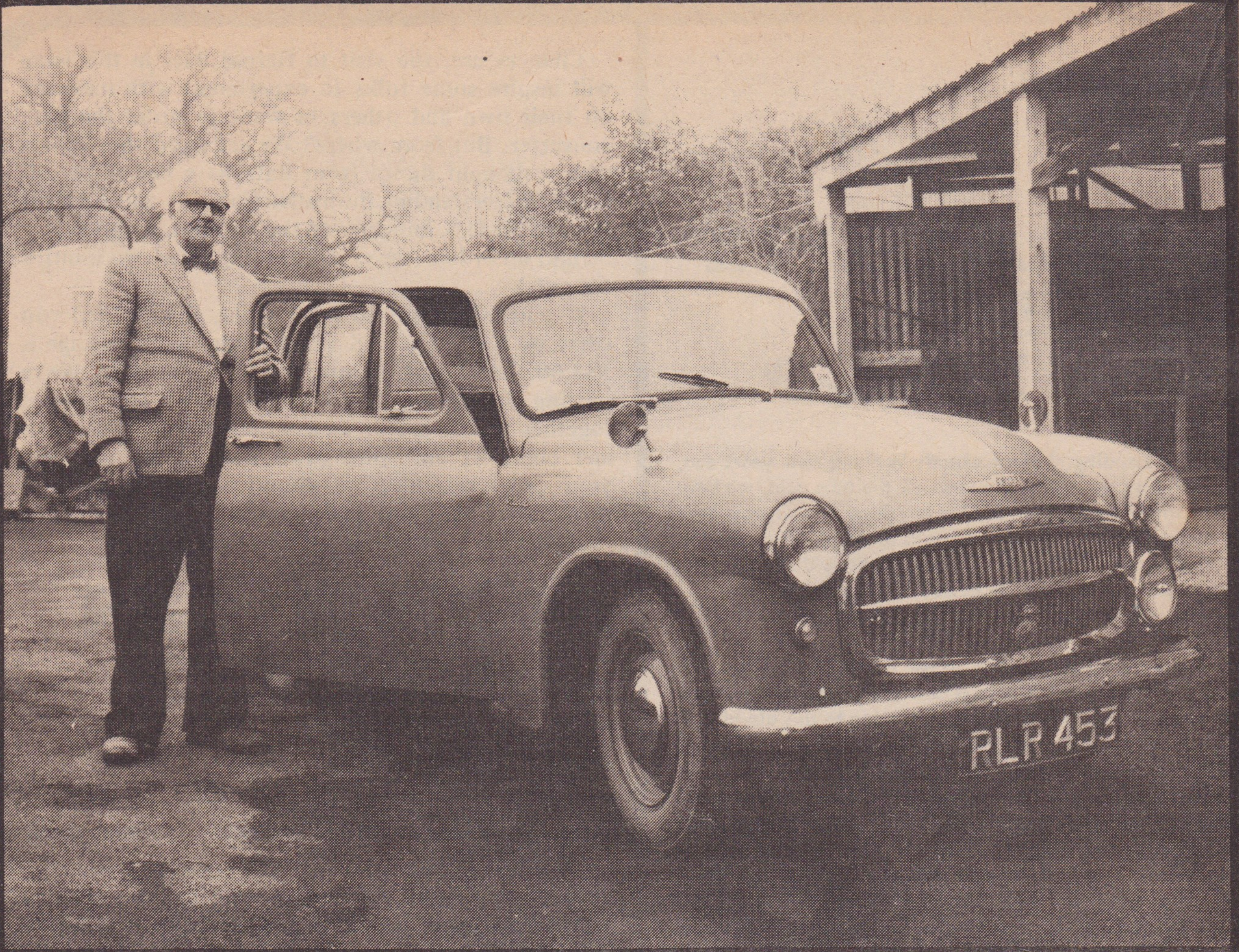
If you're anxious to get started, though, tell you what we'll do. The U.S. price of the Bate package is $35.00. Send that amount on in if you like. We're putting the pressure on EARTH MOVE and putting together a new set of instructions for the Bate unit and checking out some other sources. By the time your order gets here we should be able to forward it on to someone who can give you snappy service . . . or we'll fill it ourselves.

MOTHER'S RADIO SHOW

The radio shows—all 65 of 'em—are now in the can! Blessed relief. Now we can get back to the magazine business and bring our publishing schedule up to where it should be. Hang on, we're tryin'.

In the meantime, you may notice a big (25 X 36) brown and green and white and black MOTHER radio poster popping up around the country. Kim Zarney—the fellow responsible for the cover on this and the last issue of the magazine—did it and it's a beauty. YOU CAN GET ONE FREE FROM YOUR LOCAL MOTHER DEALER. Just walk in and ask for it. Or bug your local radio station until it carries the show and then get a poster through the station.

However, if you can't wait or your local store is out of posters (tell 'em to ask us for more), you can get one of the posters from MOTHER for $1.00. Why a dollar? Because it costs us so blasted much to mail them out individually (the tube costs as much as the poster and individual postage is absolutely murder). Even at $1.00 we won't make anything . . . but we won't lose anything either and we're happy to give you the service if you want it.



ABOVE: Who needs a tiger in their tank? Harold Bate, chicken farmer and inventor from Devonshire, England says that you can power your motor vehicles with droppings from chickens, pigs or any other animal of your choice . . . even with your own waste! To prove his statement is no idle boast, Harold has been operating a 1953 Hillman and a five-ton truck on methane gas generated by decomposing pig and chicken manure for years. He claims that the equivalent of a gallon of high-test gasoline costs him only about 3¢ and that the low-cost methane makes his vehicles run faster, cleaner and better than they operate on "store bought" fuel. Mr. Bate stands beside his famous Hillman in the photo above.

Harold Bate was born in 1908 in the city of Stoke in England's industrial midlands. He left school at the age of 14 to work as an apprentice mechanic with the Potteries Traction Company. Here he learned many basic engineering skills working on the old streetcars before becoming a maintenance engineer with the Stafford Coal and Iron Company. While with Stafford, Bate spent his spare time developing Submarine escape devices and advanced independent suspension systems for automobiles.

In 1937, Harold Bate lost a leg in a driving accident. This would have been the beginning of an insurmountable infirmity for many people...but not for Harold. Ten years later..with wife, young daughter and cane--he set out for the grandest adventure of all: a driving tour of Africa.

"We travelled in an old ex-Army jeep," says Bate, "and, in eight years, drove 380,000 miles. It was hard, it was hot and--at times--it was dangerous...but we wouldn't have missed it for the world. We loved every minute. Our daughter learnt more out there than she ever would have in school."

While in Africa, Bate prospected for gold and uranium in Rhodesia and Tanganyika (now Tanzania) and--on more than one occasion--the family was attacked by bandits and had to fight for their lives. For one long stretch, they lived off what wild game they could hunt in mile after mile of mango swamps (well stocked with poisonous snakes) through which they passed.

But there were good times too. The Bates were treated like Royalty when they visited the Sheiks of the North African deserts, for instance, and the family was also well looked after by head hunters in another primitive area. As the remarkable and durable Mr. Bate says, "It was one hell of an adventure."

On his return to England in 1955, Harold worked as an electrical contractor, started a ferry boat service and drove a taxi before turning his attention to unleashing the power hidden in manure.

THE MARVELOUS CHICKEN-POWERED MOTORCAR!

BARRY GRINDROD

Detroit and the large petroleum interests keep saying it can't be done but a 62-year-old English inventor has already done it. Harold Bate, British chicken farmer and experimenter, has developed a small conversion unit that makes any ordinary automobile virtually pollution-free. What's more (and hang on to your hat for this one), the Bate convertor can also cut your fuel, oil, sparkplug and other miscellaneous automobile operating expenses by a factor of ten!

The Bate system accomplishes these amazing feats as naturally as a compost pile by recycling animal droppings and sewage into methane: a colorless, odorless, flammable gas. This means that, as a bonus, Harold Bate's development just may go a long way toward safely and naturally reclaiming the mountains of waste with which "civilized man" seems determined to bury the planet.

Interestingly enough, Bate did not make his noteworthy breakthrough in a well-equipped laboratory or while working on a multi-million dollar research grant. The convertor and other parts of the Bate system were developed by Harold from odds and ends at hand as he puttered about his 450-year-old cottage and chicken farm in the heart of Devonshire.

To be sure, Harold Bate has invented nothing new in the way of a basic process. Methane has been forming naturally in swamps and waste organic matter since long before man walked the earth and many ingenious experimenters have harnessed this source of fuel in the past (see SOLUTION TO POLLUTION, ELECTRICITY FROM MANURE GASES and HOW TO GENERATE POWER FROM GARBAGE in MOTHER NO. 3). But Harold does seem to be the first to have actually put the whole idea on a workable, homestead, "anybody can do it" basis.

From a 450-year-old cottage in the heart of Devonshire, England, a 62-year-old inventor is selling a remarkable chicken-powered car to the world. Yes, you read correctly. A *chicken*-powered car . . . for Harold Bate has devised a way of producing automobile fuel from animal droppings.

The secret is methane, a common by-product of the natural process of decomposition and a *much* cleaner fuel than gasoline. Mr. Bate generates methane in usable quantities by simply speeding up nature a bit with a pressure "digester" . . . just as an organic gardener speeds up the decomposition of natural matter with a compost pile.

There's nothing complicated nor expensive about the Bate digester. Whereas the large petroleum corporations must refine gasoline in complex, multi-million dollar plumbing nightmares, Harold's methane cooker looks more like a recycled home fruit canner and is small enough to fit into the corner of any basement or garage. Converting a private car to operate on this natural fuel is just as straightforward and economical and--for an initial investment of $100 or less and a little elbow grease--almost anyone should be able to start riding the roads virtually free of charge . . . assuming there's a supply of animal droppings and/or other organic waste at hand.

The 16th Century Bate abode where this "everyman's gasoline plant" was born is not the easiest place to find. It's two miles from the nearest small village, well off the beaten track and completely hidden by trees . . . which is why the Bates moved in some four years ago. "We're away from it all here," says Harold. "We can't hear any traffic nor church bells. That's a blessing. I hate church bells . . . they're so mournful."

Despite--or, perhaps, because of--their recluse life, the Bates are cheerful, hospitable people who love the country and the way of life that goes with it.

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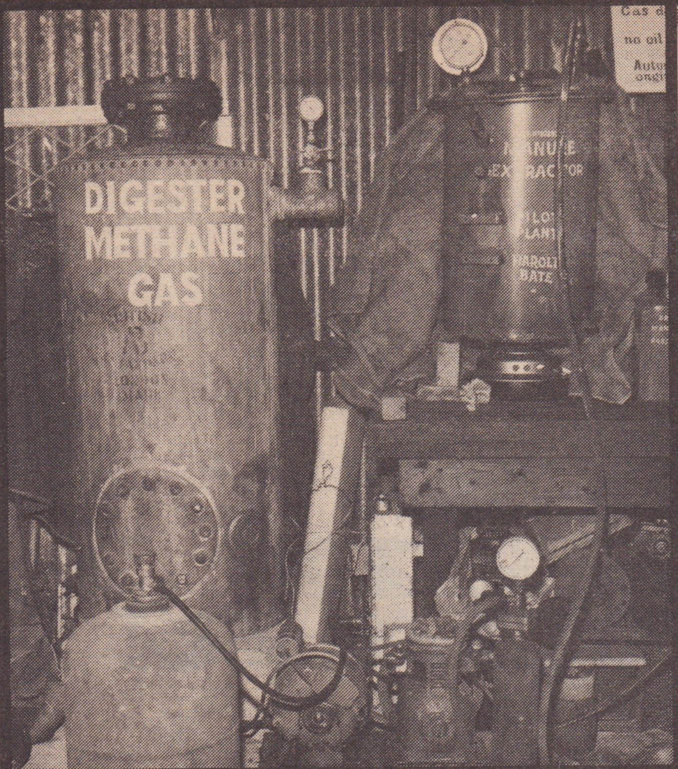
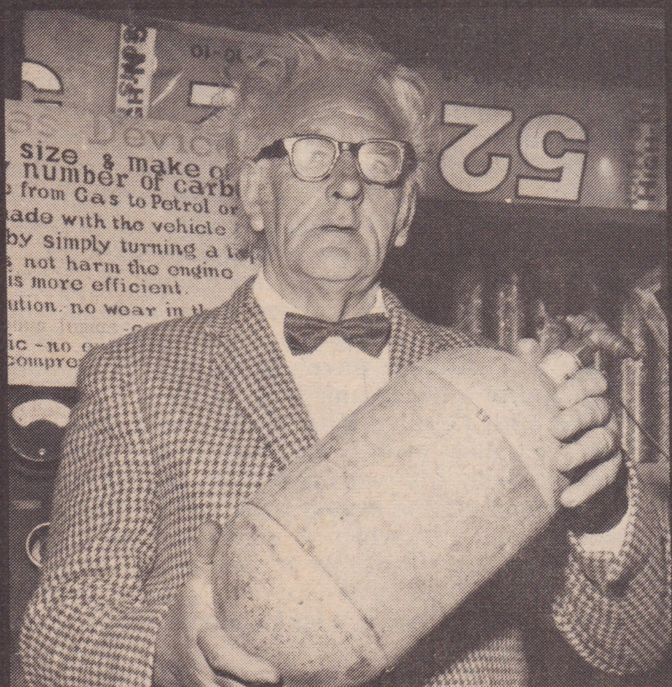

DIGESTER
METHANE
GAS
MANURE
EXTRACTOR
PILOT
PLANT
HAROLD
BATE

ABOVE LEFT: Harold Bate's pilot Manure Extractor and the Manure Digester that he uses for day-to-day generation of automobile and truck fuel. Note the high-pressure compressor with which Bate fills a storage bottle (lower left of photo) to a pressure of 1100 pounds per square inch. ABOVE RIGHT: From this cluttered home workshop, Harold Bate challenged the multi-billion dollar petroleum industry and won! BELOW RIGHT: Graphic proof that Harold's small pilot Manure Extractor does the job! Methane from the digester first bubbles into a gallon bottle of water and then passes to a small gas jet where it is easily ignited and supports a flame. Obviously, part of the methane generated by a large digester can be piped to a burner under the extractor for use in maintaining the tank at the optimum gas generating temperature. BELOW LEFT: Harold Bate holds pressure tank of home-made methane.


size & make of
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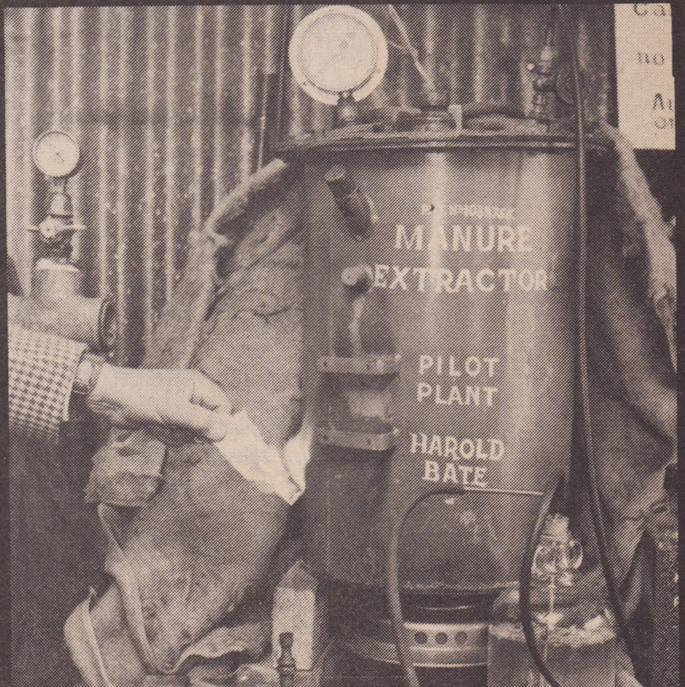
MANURE
EXTRACTOR
PILOT
PLANT
HAROLD
BATE

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Their closest friends are numbered amongst the local wildlife community and, throughout the day, a variety of birds fly into the open windows of the family cottage. Rabbits and squirrels are also a common sight on the Bate homestead.

In this tranquil setting, I asked Mr. Bate how he came to start work on his "free and clean" automobile fuel.

"It all started with the Suez Crisis in 1953," Harold said. "When Egypt closed the canal, it blocked England's supply route with the Middle and Far East. This meant that petrol imports were crippled and fuel here in Great Britain was rationed. I got fed up with that and started looking round for an alternative form of power. I knew that gas engines were used before petrol (gasoline) and I also knew that gas was more efficient than petrol . . . so I began to experiment.

"During the war I had done quite a bit of pig farming, and I knew that manure contained gases and that pig manure was very potent. A number of experimenters and sanitation facilities have been extracting gas from sewage for years now, but it's diluted so much that the process is slow. I therefore decided to concentrate on animal manure and find the best blend from which to extract methane . . . and then develop a method of feeding this gas into a car's engine.

"After experiments with just about every type of animal manure, I found I got the best results from mixing that of chickens and pigs. Chicken manure contains more nitrogen than others and pig droppings are useful because they generate heat so well."

Bate has also found a certain amount of straw and/or vegetable waste to be a valuable addition to his methane raw materials. The manure contributes mainly nitrogen and the straw provides carbon, it seems. The ideal mixture is about 75% droppings (half pig and half chicken) and 25% straw. Methane brewed up from this formula has a caloric value per liquid pound of 22,000 B.T.U. as compared to gasoline's 19,000, propane's 19,944 and butane's 19,680.

The excreta-straw formula is first stacked up into a compost pile, doused with water and left exposed to the air for about a week of aerobic prefermentation. When this prefermentation is complete, about three hundred pounds of the mixture is shoveled into a heavy steel container (Bate recommends a trash-mongered domestic water heater) and sealed shut. A wait of four, five or even seven days--depending on conditions--is then necessary before fermentation of the first batch starts. If a little of the original mix is left behind as a starter, however, gas production will usually begin within 24 hours for all following batches.

The real secret of a rapid, strong and complete transformation of waste into the maximum amount of methane is the maintenance of the 85 to 90° F temperature at which the necessary bacteriological digestion is most active. If the temperature of the digester rises above 104° F, no gas will be produced at all and — in extremely hot regions — a methane production unit should be shaded or otherwise protected from the heat. A digester set up in a temperate or cooler zone, on the other hand, may need some supplemental heating from an electric element inside the tank or a small kerosene (or methane!) flame under the unit.

By the way, for those who speculate that the methane used to heat the digester might total more than the gas produced by the unit . . . taint so! An extremely low flame (a car sump heater is ideal) under a Bate digester can cause the tank to yield a right vigorous flow of gas.

Bate has fitted his digester tank with a safety valve set for 60 p.s.i. "just in case". Pressures in the extractor seldom reach a third that level, however, because Harold considers a digester internal pressure of 20 p.s.i. to be the signal to start up a high-pressure compressor (of the type used for filling aqualung diving bottles) and pump the collected gas from the extractor into an ordinary high-pressure bottle.

A filter between the digester and pressure bottle extracts the small quantities of phosphoric acid and ammonia that are present and the remaining almost-pure methane liquifies at a pressure of 1110 p.s.i.

Bate finds that it takes about one-half hour of steady pumping to fill a 32-pound (4.5 Imperial gallon) bottle to its capacity of liquid methane. This figures out to approximately 200 cubic feet of dry gas . . . or a fuel equivalent of seven gallons of good petrol (about eight and three-quarters gallon of high-test gasoline, to readers in the US).

The digester will continue to produce for several weeks and will then have to be topped up with more manure and the sludge run off. All in all, a single filling of 300 pounds of manure will produce about 1500 cubic feet of methane equivalent to roughly 50 gallons of petrol (62 US gallons). That's not bad and Bate figures it costs him only three cents to produce the equal of an Imperial gallon of petrol.

Once he had a guaranteed supply of methane, Harold next faced the problem of getting the high-pressure gas into his car's engine in the exact amount required by the powerplant under all operating conditions. His answer, of course, was the now-famous 6" x 5" carburetor attachment which he calls the Bate Auto Gas Converter.

The attachment (it looks like a model flying saucer) fits between the methane pressure bottle and the car's carburetor and allows the cylinders of the engine to suck just enough methane--and no more--from the bottle as the fuel is needed. The only modification made on the engine itself is the simple tubular jet which is threaded into the choke tube of the carburetor before the throttle butterfly valve. A run of rubber tubing connects this to the Bate converter and a further run goes back to wherever the methane bottle is carried. No mechanical linkage or other complicated modification is necessary.

Incidentally, the storage of the methane need not be restricted to high pressure bottles. A rubber dinghy, air bed or even giant inner tubes carried on the roof of the car would be just as effective . . . or as Bate says, "Fill your tires with methane and run till they're flat!"

Motoring on methane offers more than the 3¢-a-gallon economy mentioned earlier. Mr. Bate finds

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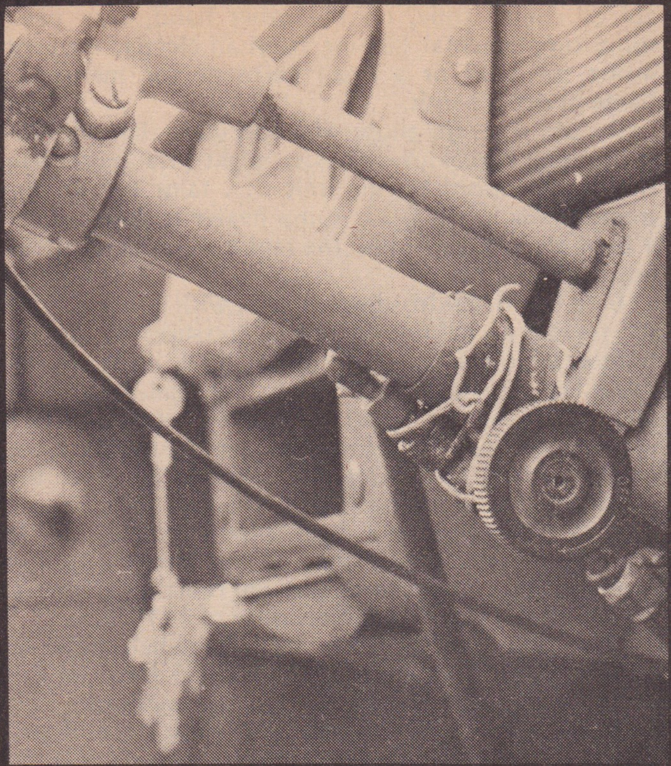
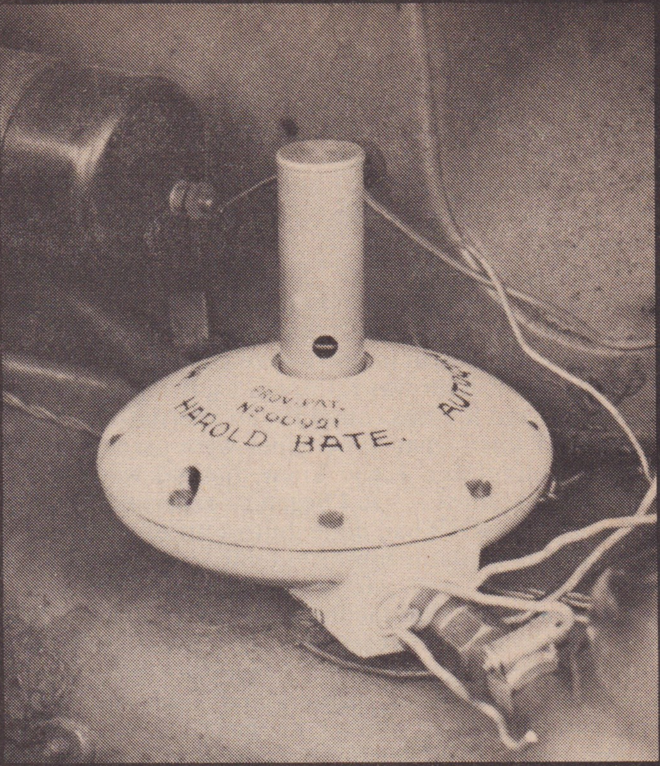
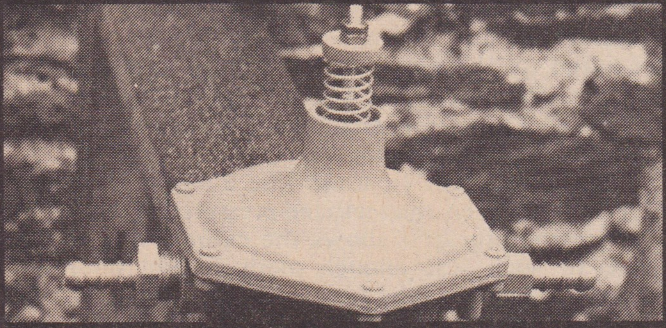
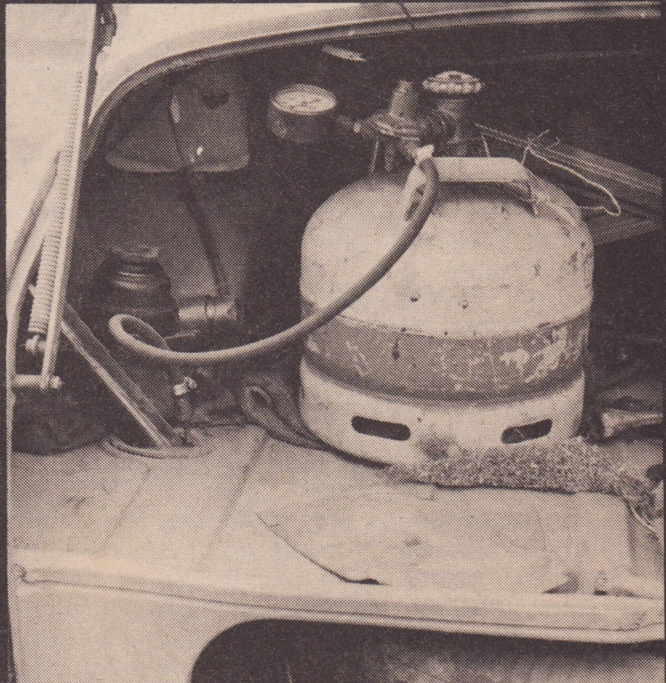




ABOVE LEFT: Nothing fancy here! Harold has simply "hay wired" the methane gas cylinder valve to the steering wheel of his Hillman. ABOVE RIGHT: The Bate Auto Gas Converter (demand regulator) as mounted in Harold's 1953 Hillman. The white cover here is purely decoration. Note, again, the rather casual manner in which Bate has installed his accessories in his own car. BELOW RIGHT: We find, secured by another twist of wire, the pressure tank of methane which fuels the Bate Hillman. In this case, the tank is a recycled "camping gas" bottle of a type common in England. BELOW LEFT: The patented Bate Auto Gas Converter with all frills removed. This important piece of hardware and instructions for setting up your own methane plant is what you receive when you buy a converter from Bate. FAR BELOW LEFT: There are days when being a world-famous chicken farmer-inventor is a royal drag.





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that the gas gives 97 to 98% combustion compared to the 27% combustion (with the rest going out the exhaust in the form of carbon and pollution) of gasoline. So there's a definite ecological benefit. Engine wear is also markedly cut since methane, being dry, cannot dilute nor contaminate motor oil in the way that gasoline does . . . and sparkplugs last much longer. "I've taken plugs out of my car after five years and more, and they've been as clean as the day I put them in," says Bate. "My car runs cleaner, smoother and has more power on methane."

To prove his words were no idle boast, Harold took me for a demonstration drive in his famous 1953 chicken-powered Hillman.

When he started the car on petrol and the vehicle broke into a rather lumpy idle, Bate flicked a switch on the dashboard and turned a knob on the steering column. "I've cut off the petrol," he explained. "When the float chamber on the carburetor empties, we'll be running on methane. You'll see the difference."

And I did. In a matter of moments the rather weary 18-year-old engine settled down to a smooth purr and, on a short demonstration run, the bulky vehicle made light work of the switchback lanes around Bate's home. Throttle response was incredibly good and there were no flat spots such as are common with carburetion using normal fuel in machines of this age.

"I get five more miles to the gallon on methane than I get from an equivalent amount of petrol," Harold said. "This is because the dry methane has a higher calorific value and there is no waste of unvaporized fluid. Absence of oil dilution and reduced carbon deposits are just bonuses."

Incidentally, all the advantages which methane bestows on an automobile--economy, pollution reduction, longer life and reduced maintenance--are just as evident when the gas is burned in tractors, trucks and stationary engines. Methane produced on the homestead can also be used to heat water, run a refrigerator, cook food, warm a house and do all the other jobs that we now do with natural gas. With a large enough digester and a ready supply of animal droppings, then, it is possible that a family farm might supply all its own power requirements from this one source alone.

Of course, it remains to be seen if such self-containment is desirable. Perhaps we're all better off simply recycling the manure back to the fields, selling the car and appliances and getting a horse. Time will tell. In the meantime, it certainly is possible to construct a methane generator large enough to power a homestead, and Mr. Bate has devised one that utilizes septic tank wastes.

This large digester consists of a pit dug in the ground and lined with brick or concrete (a tank built on a low foundation above ground would also suffice) measuring approximately 10-feet square with an adjoining storage tank of the same size or larger.

To prepare the system for non-stop production of methane, the usual septic tank vent pipe is fitted with a gas trap and any other openings are sealed. A no-return flap valve is fixed on the sewer pipe where it enters the digester (to keep the gas from escaping through the inlet) and another no-return valve is inserted in the line between the extractor and storage tank. This allows methane to pass to storage (but not return) as the gas is generated.

A hole is then made in the digester cover and a thermostatic electric immersion heater is mounted so that it reaches well down into the raw sewage. The thermostat is set to give a steady heat of 85 to 90 degrees Fahrenheit and another small hole is drilled in the digester cover for the insertion of a check thermometer into the sewage from time to time. This last hole is fitted with a gas-tight stopper except for the brief periods when a temperature check is being made.

If the tank is built above the ground, the digester can be heated by a steam pipe run through the contents and connected to the domestic hot water supply. It can also be heated by a gas ring or burner under the extractor and, once methane is being produced, this burner may be connected into the gas storage tank . . . allowing the system to heat itself.

As ingenious as this arrangement may be, Harold Bate's restless mind is already far down the road to greater things. At the moment he's waiting for a patent on his discovery of a method for abstracting the liquid content from chicken manure. It seems that chicken droppings in their natural state are too sticky to be a convenient fertilizer . . . but--with the liquid abstracted--the manure makes two very good fertilizers, one dry and one liquid.

"The so-called experts have been working on that one for years," chuckles Bate. "I solved it in no time. It's a question, I think, of overlooking the obvious. My next project, if and when I get the time, is the development of an electric car that will generate its own power. I know I can do it."

In the meantime, Harold is still faced with the problem of convincing the boffins and powers-that-be to accept his already-proven ideas on methane. The Bate conversion, you see, has already received the stamp of official approval from the British Government's Ministry of Transport . . . but it seems distinctly unlikely that those chaps--who collect a 75% tax from the price of petrol--are going to advocate a mass changeover to homemade fuel at 3¢ a gallon.

The story is much the same right down the line: it takes money to promote and market do-it-yourself methane on a large scale . . . and the people with money generally find it to their advantage *not* to promote methane.

Be that as it may, the facts speak for themselves. Bate's invention is simple, it's incredibly inexpensive . . . and it works. Hundreds of people, who are now driving chicken-powered cars the world over after contacting Mr. Bate directly, can vouch for that. And the word is beginning to spread.

So--until a large firm finally sees the light, buys Harold out and begins to promote his digester and convertor in a big way--Mr. Bate and his wife, Evelyn, will continue doing the job alone. And that means that, for as many as 18 hours a day, Evelyn will sit in the picturesque 16th-Century cottage answering letters while Harold handcrafts methane generators in a small workshop at the bottom of the garden path.

That seems as nice a way to change the world as any.

COMMON SENSE CONTROL OF INSECT PESTS ON HOMESTEAD ANIMALS

R. J. HOLLIDAY, DVM

Several years ago it was possible to find advertisements similar to the following in many small farm publications circulated throughout the nation:

> GUARANTEED INSECT CONTROL: Works on all injurious insects. Cheap. Easy. No sprays, dusts, or residues. Absolutely harmless to humans, livestock, pets and plants. Nothing else to buy, your first cost is your last. For kit and instructions, send $$$$ to . . .

Well now, this was just too good to be true. So the dollars were sent, and in due time a small package arrived. The instructions were simplicity itself: "Entice the offending insect to alight on the large wooden block (marked A), and then smash it with the small wooden block (marked B)."

I don't know how financially successful the perpetrator of this scheme was . . . but human nature being what it is, he probably did quite well. It is to his credit that, at least, his product was ecologically harmless . . . which is more than can be said for today's insecticide salesmen. These modern conmen would have us believe that we will all starve to death if we do not use their biocides to destroy insects and they engage in a continuous search for ever more deadly products that they say are necessary to control the more resistant pests.

It should be evident that neither of these approaches has proven effective. The old "two-block" method has certain obvious limitations and the use of chemical insecticides for over twenty-five years has resulted in little, if any, reduction in the total population of bothersome insects.

There is, however, a middle road which we can follow to control the insects that bother our homestead animals. Let's consider some of the more common of these pests and methods for their control.

To begin any insect control program it is necessary to have a positive identification of the culprit and a clear understanding of its habits, its likes, dislikes and life cycle. Armed with this knowledge it is sometimes possible to avoid the pests entirely, to discourage their attacks or to interfere with their love-life to the extent that their population declines and they are no longer a major problem. If these tactics fail, then we may have to consider the use of more drastic measures.

The life cycle of insects can be simple or complex, but always includes four stages: *Egg, Larva, Pupa, Adult.*

Common flies—such as houseflies, stable files and horn flies—have a rather simple life cycle. The eggs are laid in manure or rotting vegetation, hatch into larvae, pupate, and emerge as adults. The entire cycle can be completed in 10 days to 3 weeks depending on the species involved and on environmental conditions.

Horseflies and deer flies lay eggs near water and the larvae drop into the water and complete their development in the mud of shallow ponds or marshes. In some climates it takes almost a year for them to complete their development.

The screwworm fly deposits her eggs on the edges of wounds on animals. The eggs hatch in about 12 hours and the larvae burrow into the living flesh of their host. If not treated, these larvae will eventually kill the affected host animal. At one time the screwworm was the scourge of the cattle industry in the south and southwest but the pest has now been brought under control by U.S.D.A. entomologists who knew that the female screwworm mates only once but that the male mates several times. The entomologists took advantage of these traits by releasing millions of sterilized male screwworm flies into the problem areas. The resultant sterile matings have been responsible for a marked reduction in the number of these pests. Indeed, total eradication would be possible if it were not for the unavoidable migration of flies into this country from Mexico.

The maggots now seen in neglected wounds are usually the larvae of the common blowfly. These larvae do not feed on live flesh and consequently are not nearly as serious a problem as screwworms. However, they do interfere with healing and for this reason should be controlled.

The many different species of mosquitoes have somewhat dissimilar life cycles but all are dependent on stagnant water as the site for larval development. Some species are known vectors (carriers) of *sleeping sickness* and *malaria.*

Ticks are not true insects. Along with spiders, they are in a class of creatures called ARACHNIDA. Adult arachnids have eight legs as opposed to the six legs exhibited by adult insects. Tick eggs are laid on the ground and soon hatch into tiny six-legged seed ticks. The seed ticks crawl up on vegetation and transfer to any suitable host that brushes past their perch. Once on the host, the ticks gorge with blood, drop to the ground, molt and become eight-legged nymphs. The nymphs follow the same system to find a new host and after a final molt, the adult begins its quest for another victim. Some ticks spend their entire development period on one host but most of the common ones are three-host ticks, as described above. Ticks can be vectors of *Rocky Mountain Spotted Fever, sleeping sickness,* and *tularemia* (rabbit fever). Humans are susceptible to all of these diseases.

There are several management practices that can be employed to aid in the control of these pests. The primary consideration is the elimination of breeding sites. In the case of most flies, this involves composting manure and decomposing vegetation or else spreading it out so it can dry. Mosquitoes have been known to complete a life cycle in the small amount of water found in vases of cut flowers in the home and in the water in hoof prints by a pond or stream; thus it is very important to drain all areas of stagnant water and marshy areas. This will also help reduce the numbers of horseflies and deer flies. If you have places that cannot be adequately drained and in which natural controls such as minnows or frogs are absent, the mosquito larvae can be suffocated by the application of a thin film of oil to the surface of the water.

In regions where ticks are a severe problem it is wise to exclude your animals from brushy pastures for several weeks in the spring and early summer. This avoids subjecting them to contact with the ticks at the time of peak activity.

Flies are less active at night so you may want to allow your animals access to a dark barn during daylight hours and let them graze at night.

Do everything possible to encourage natural insect predators such as cowbirds, barn swallows, martins, and the various parasitic beetles and wasps that prey on the eggs or larvae of flies. Many of these beneficial insects are available commercially and are a worthwhile investment.

Your County Extension Agent may have plans for fly-traps that you can build.

Insects vary greatly in their response to repellents so their use requires a great deal of ingenuity. Many people are of the opinion that a daily allowance of vinegar, garlic, or sulfur will affect the bodily secretions of animals to the extent that they are no longer attractive to insects. If you care to try this a daily dose of 2 to 4 ounces of vinegar would be about right for a horse or cow, and it can be added directly to the feed or water. Smaller animals would get proportionately smaller doses. Powdered sulfur can be provided free-choice to large animals or mixed in their salt at the rate of approximately 3 parts sulfur to 97 parts salt. Dogs can be given one 5-grain sulfur tablet daily for each 30 pounds of body weight. Discontinue the use of sulfur if the animals develop diarrhea.

Oil of Citronella is reputed to be an effective mosquito repellent when applied to exposed areas on people. Its application on animals would probably be limited to use around the eyes and ears of horses to keep them from tossing their heads when being worked or ridden in mosquito-infested areas.

Pine tar has good insect repellent qualities but can be irritating to tissues. It's regular use should be limited to wounds and only occasional application to other places. Pine oil is also effective and is sometimes used as a vehicle for other products.

I hesitate to mention this, but there is an herb that seems to have insect repellent properties. *Cannabis Sativa,* or wild hemp, grows in clumps to a height of 3 to 12 feet. Cattle sometimes seek it out and lie in the shade of its thicket to escape the pestering of flies. Since the cultivation of this plant is frowned upon by some governmental agencies, it is probably best not to rely on it as your sole means of repelling flies.

Even with adequate attention to the above recommendations, some occasions are sure to arise that will require the use of a product to actually kill insects. If this becomes necessary, it is important to use a drug that will do the job with the least effect on other creatures. This usually involves individual treatment as opposed to subjecting the whole environment to toxic materials. Several products of plant origin are useful in this capacity.

Rotenone is the insecticidal principle found in the Derris plant, native to the East Indies and in Cube plants, native to the Amazon River basin. Relatively harmless to mammals, rotenone is a very effective killer of insects. It is noted for its "quick-kill" and also for the speed with which it is reduced to harmless substances upon exposure to sunlight or oxygen. This lack of prolonged residual activity is a disadvantage that can be compensated for by more frequent applications.

A white daisy-like flower of the genus Chrysanthemum, and native to ancient Persia (Iran), contains a substance called *pyrethrin.* Pyrethrin is very similar to rotenone in its effects and use.

Either of these two drugs can be applied as a powder, or mixed in water or oil and used as a spray. A mixture of pine oil and rotenone or pyrethrin is an excellent combination. It has good repellent action as well as efficient "knock-down" effects on the insects with which it comes in contact. The oil also retards the disintegration of the drug and results in a more prolonged activity. Small amounts of this emulsion should be sprayed on your animals with a hand sprayer set to deliver a very fine mist.

Nicotine sulphate or *Black Leaf 40* has some value as an insecticide and as a repellent. It is useful as a surface spray in and around buildings and very dilute solutions can be used on animals (not on cats). Follow the directions that come with the package.

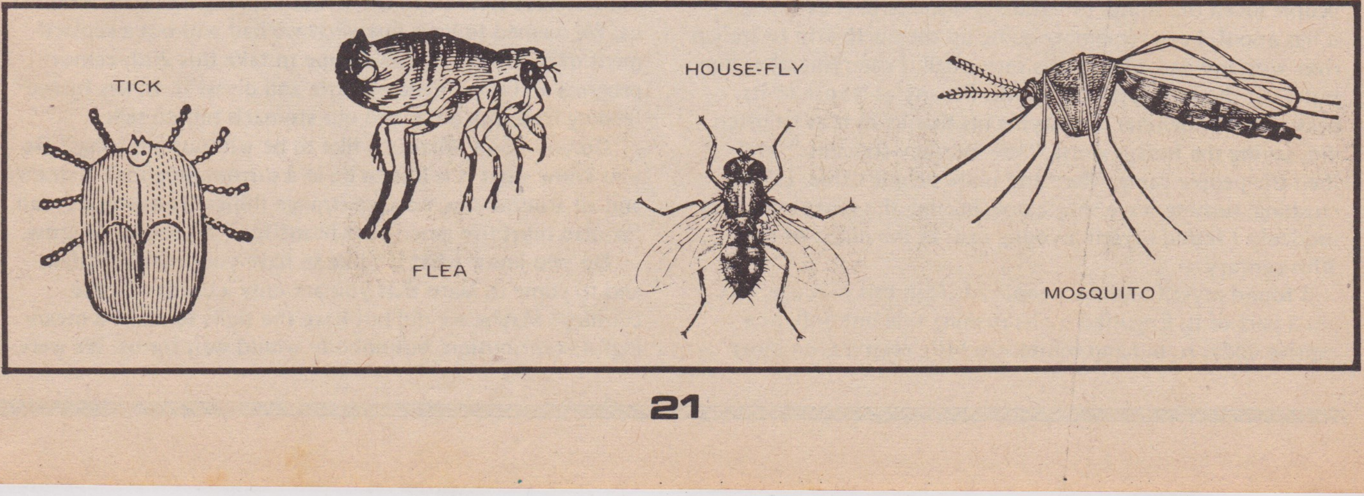
Pine tar, thinned with a vegetable oil, can be used to kill ticks that have attached themselves deep in the ears of animals. Use only small amounts, as this product will also remove hair.

In the past, some species of ticks on cattle have been controlled by dipping in a "lime-sulfur" solution. This solution is relatively non-toxic and reasonably effective. It can be sponged on at weekly intervals if dipping facilities are not available.

Remember too that a healthy, well-fed animal is resistant to much of the damage caused by external parasites. Don't neglect the nutrition of your animals, and pay particular attention to their intake of vitamins and minerals. Iron, especially, may be in short supply because of the blood loss caused by ticks, horseflies and mosquitoes.

One final bit of advice. You should evaluate your own psychological approach to insects in general and school your thinking to accept a moderate level of parasitism of your animals. Even with the extremely toxic biocides now in use, it is impossible to have 100 percent control . . . and if you cannot settle for less than this, perhaps you should move back to the sterile environment of a city apartment.

Consider the sage words of Edward Noyes Westcott: "A reasonable amount o' fleas is good fer a dog–keeps him from broodin' over bein' a dog."



"MY PEOPLE"

CHIEF DAN GEORGE

FROM A PRESENTATION MADE AT WESTERN WASHINGTON STATE COLLEGE, MAY 5, 1971

NORTHWEST PASSAGE/Box 105/So. Bellingham Station/
Bellingham, Washington 90225/Fortnightly/$6.00 a year.

My very good dear friends, was it only yesterday that men sailed around the moon and it is today they stand upon its barren surface? You and I marvel that men should travel so far and so fast, but if they have travelled far, then I farther. If they have travelled fast, then I faster. For I was born a thousand years ago, born in the culture of bows and arrows. Yet within the space of half a life time I was flown across the ages to the culture of the atom bomb; and from bows and arrows to atom bomb is a distance far beyond a flight to the moon.

I was born in an age that loved the things of nature and called it beautiful names like: "Teslelwhat" instead of dried up names like "Burrard Inlet." I was born in an age when people loved the things of nature and spoke to it as though it has a soul. I can remember going up the north arm to Indian river with my dad when I was very small. I can remember him watching the sun light fires on Mt. Penany as it rose to its peak. I can remember him saying his thanks to it as he often did, saying the Indian word, "hey-mus-hey-snocum." And then the people came. More and more people came. Like a crushing, rushing wave they came, hurling the years aside and suddenly I found myself a young man in the midst of the 20th century.

I found myself and my people adrift in this new age, but not a part of it. Engulfed by its rushing tide but only as a captive eddy, round and round. On little reserves, on plots of land we floated in a kind of gray unreality, unsure of who we were or where we were going, uncertain of our grip in the present, weak in our hope for the future. And that is where we pretty well stand today.

I had a glimpse of something better than this. I knew my people when they lived the old way. I knew them when there was still a dignity in our lives, and a feeling of worth in our outlook. I knew them when there was unspoken confidence in the home, a certain knowledge of the path we walked upon. But we were living on the dying energy of a dying culture—a culture which was slowly losing its forward thrust.

I think it was the suddenness of it all that hurt us so. We did not have time to adjust to the startling upheaval around us. We seemed to have lost what we had without a replacement of it. We did not have time to take this 20th-century progress and eat it little by little and digest it. It was forced feeding from the start, and our stomach turned sick.

Do you know what it is like to be without moorings? Do you know what it is like to be in a surrounding that is strange, and all around you, you see strange things? It depresses man, for man must live among the beautiful if his soul is to grow.

Do you know what it's like to have your race belittled, and to come to learn that you are only a burden to the country? Maybe we did not have the skills to make a meaningful contribution, but nobody would wait for us. We were shoved aside, because we were dumb and could not learn.

Do you know what it is like to be without pride in your race, pride in your family, pride and confidence in yourself? What is it like? You do not know. You have never tasted its bitterness.

I shall tell you what it is like. It is like not caring for tomorrow, because what does tomorrow matter? It is like having a reserve that looks like a junk yard, because the beauty of the soul is dead and why should the soul express an external beauty that does not match it? It is like getting drunk, and for a few brief moments escaping from the ugly reality and feeling a sense of importance. It is most of all like awakening the next morning to the guilt of betrayal because the alcohol did not fill the emptiness, but only dug it deeper.

And now you hold out your hand and you beckon to me to come across the street. But how can I come? I am naked and ashamed. How can I come in dignity? I have no treasures, I have no gifts. What is there in my culture that you value? My poor treasures you can only scorn. Am I then to come as a beggar and receive all from your omnipotent hand?

No! Somehow I must wait. I must delay. I must find myself, I must find my treasure. Then I can say to my wife and to my family, "Listen: they are calling me; they need me. I must come." Then I can walk across the street and I will hold my head high for I can meet you as an equal. I will not scorn you for your demon gifts and you will not receive me in pity. Pity I can do without. My manhood I cannot do without. I can only come as Chief Capalano came to Captain Vancouver: one sure of his authority, certain of his worth, master of his house, leader of his people.

I shall not come as a cringing object of your pity. I shall come in dignity, or I shall not come at all. And now you talk big words of integration. Does it really exist? Can we talk of integration until there is social integration? Unless there is integration in hearts and minds, you only have a physical presence and the walls are as high as the mountain tops. Come with me to the playgrounds of an integrated high school. See how ugly and flat the blacktop is. Now listen. The bell rings; it is recess time. The doors open, and the students pour out of the doors. Soon over there is a group of white students, and over there by the fence is a group of native students. But now look; the blacktop is no longer there.

Mountain ranges rising, valleys falling and a great chasm is opening up between the two groups: yours and mine. And no one seems to be capable of crossing over. Why? God in heaven, why? Why?

I know what you must be saying, "Tell us, what do you want?" Yes, what do we want? We want first of all to be respected and to feel that we are people of worth. We want equal job opportunities for our students. We want guidance and counseling. We want to feel that we are a people of worth.

Let no one forget this: we are a people with special rights guaranteed to us by promises and treaties. We do not beg for these rights, nor do we thank you. We do not thank you because we paid for them. God help us, the price we paid was exorbitant. We paid for them with our culture, pride, and self respect. We paid, we paid, and we paid until we became a beaten race, poverty stricken and conquered. But you have been kind to listen to me, and I know that in your hearts you wish you could help.

I wonder if there is much you can do, and yet there is a lot you can do. When you meet my children in your classrooms, respect each one for what he is: a child of our Father in heaven and your brother. Maybe it boils down to just that.

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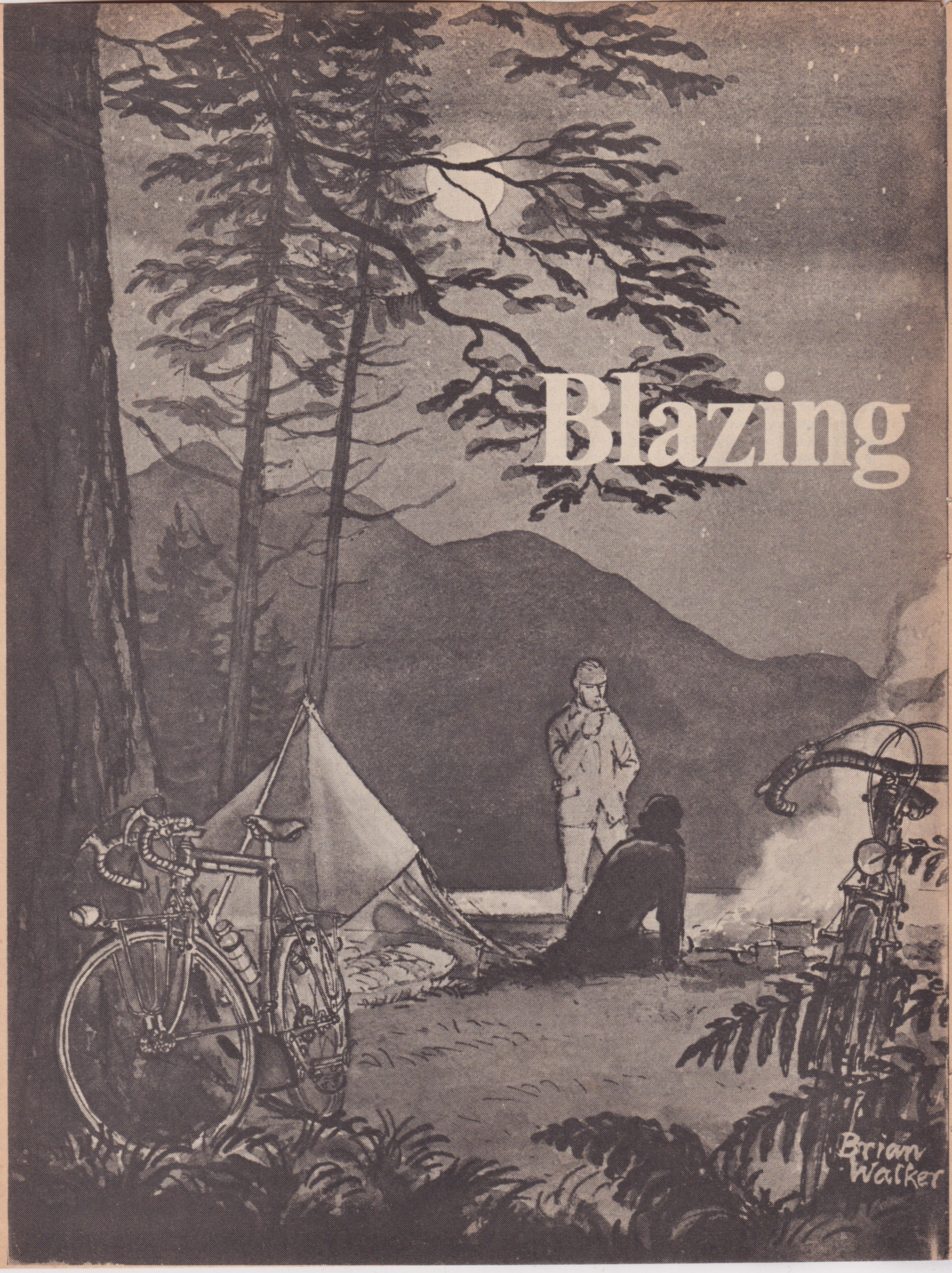


Blazing

Brian Walker

A TENDERFOOT'S GUIDE TO PAINLESS CYCLE-CAMPING.

Reprinted from BICYCLING! Magazine/256 Sutter Street/San Francisco, California 94108/Monthly/Single Issue, 60¢/US One Year, $6.00/Foreign One Year, $7.00

Your Own Trail

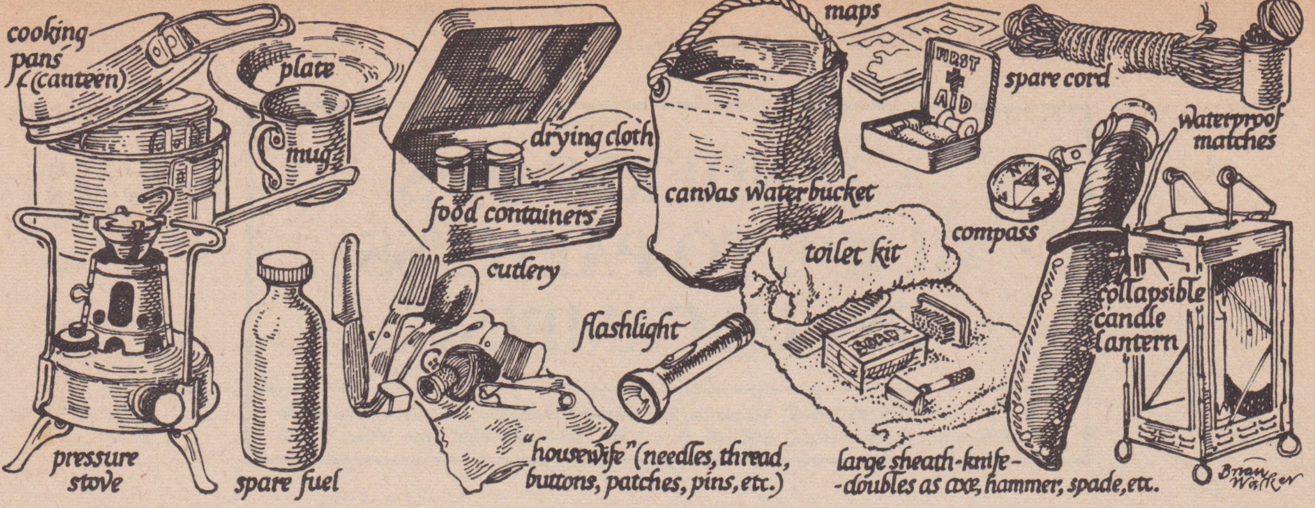
BY BRIAN WALKER

It is as appropriate for me, a mere Englishman, to address an American audience on the subject of camping as it would be for a hotel chef to advise the citizens of Olympus on the preparation of ambrosia. But it is possible that while you and the Olympians have such unsurpassable raw material, that chef and I possess mortal scars and bitter experience which could be of service to you loftier beings.

Let's face it, you have all the advantages, the sort of situation that I have often dreamed of, but can never know. In your huge continent you have great areas of solitude: mountains, forest and desert that cry out for adventurous cycle-camping; you have a tradition and literature of overland pioneering second to none, and to cap it all, cycling in your country is a booming sport and pastime.

I believe that the major hurdle one has to jump before becoming a cycle-camper is one of philosophy and logic. Here are four maxims for the apprentice camper to chew over:

> *"To go light is to play the game fairly. The man in the woods matches himself against the forces of nature. In the towns he is warmed and fed and clothed so spontaneously and easily that after a time he perforce begins to doubt himself, to wonder whether his powers are not atrophied*


cooking pans (canteen)
plate
mug
drying cloth
food containers
canvas waterbucket
maps
FIRST AID
spare cord
waterproof matches
compass
toilet kit
cutlery
flashlight
SOAP
collapsible candle lantern
pressure stove
spare fuel
"housewife" (needles, thread, buttons, patches, pins, etc.)
large sheath-knife -doubles as axe, hammer, spade, etc.
Brian Walker

from disuse."

". . .go light, for a superabundance of paraphernalia proves always more of a care than a satisfaction."

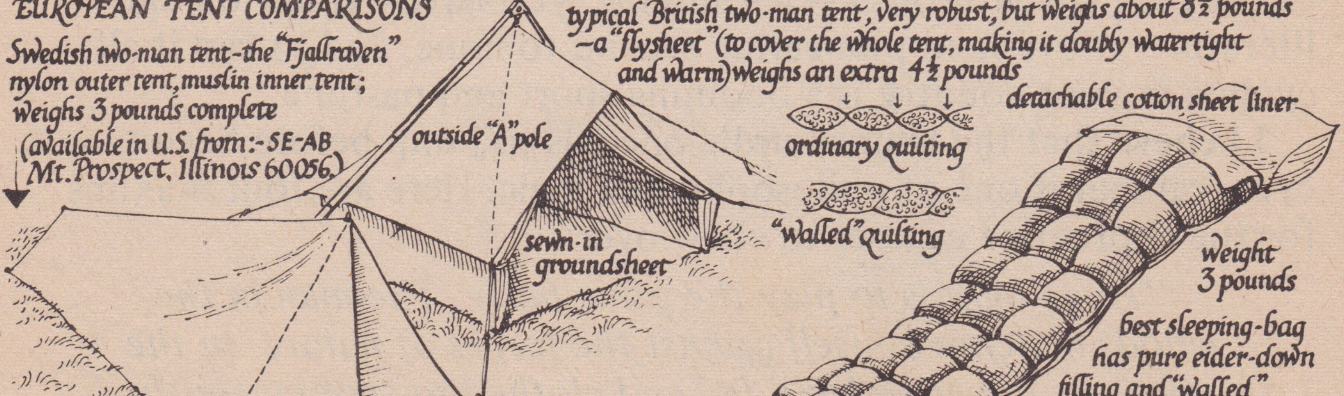
"To go light, discard all but the really necessary articles."

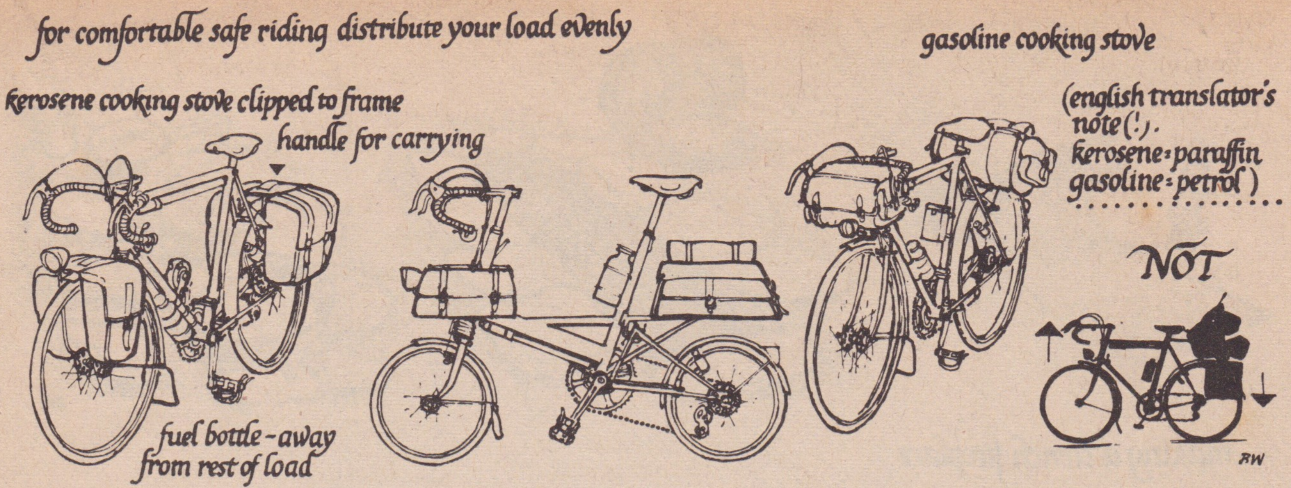
"When you return from a trip, turn your duffel bag upside down on the floor. Of the contents make three piles . . . Pile number one should comprise those articles you have used every day; pile number two, those you have used occasionally; pile number three, those you have not used at all. If you are resolute and single-minded, you will at once discard the latter two."

Those are quotes from American writer Stewart Edward White's "The Forest" written in 1903, long since out of print, but a book I would like to see in every school library. Notice White's insistance on *going light.* Lightness and simplicity are the most important factors in the selection of your equipment, while you must search your own soul to find whether you yourself are geared to the pastime. Ask yourself the question, "What do I want out of camping?" If the answer is something like, "To travel without fuss, to be really mobile, to be thoroughly independent, to achieve the maximum appreciation of the country in all its moods and conditions, to harmonize in every possible way with my surroundings without creating disturbance and show, and to use my own resources and health as fully as I can to those ends," then the battle is half won. Too many would-be campers make the mistake of trying to modify city methods to suit open-air conditions, and fail to modify themselves to fit the life of the wilderness.

In the illustrated panel above I have in detail enumerated my maximum kit for a prolonged cycle-camping journey. But I improve considerably on this amount (I mean by cutting it down, of course) for journeys of only a few days' length. Remember one more maxim, "The really successful lightweight camper is one whose pack *shrinks* every year and whose enjoyment increases in ratio with every vanished ounce." I don't know if Steward Edward White actually said that, but if he didn't, he jolly well ought to have.

Just two examples to point the lesson. For instance, the novice camper will wear rubber boots in the rain—the experienced camper will wear an old pair of sneakers. To wash the

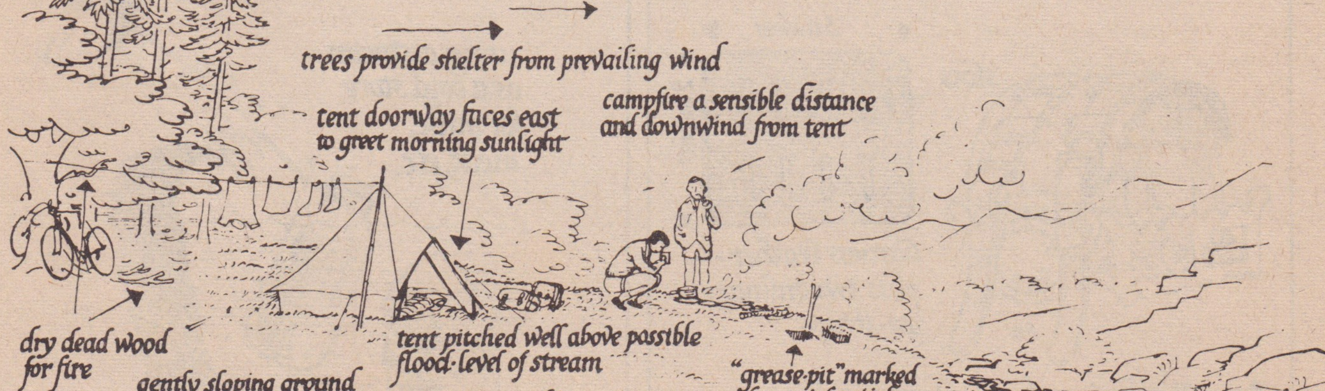

EUROPEAN TENT COMPARISONS
Swedish two-man tent - the "Fjallraven" nylon outer tent, muslin inner tent; weighs 3 pounds complete
(available in U.S. from:- SE-AB Mt. Prospect, Illinois 60056.)
outside "A" pole
sewn-in groundsheet
typical British two-man tent, very robust, but weighs about 8½ pounds —a "flysheet" (to cover the whole tent, making it doubly watertight and warm) weighs an extra 4½ pounds
ordinary quilting
"walled" quilting
detachable cotton sheet liner
weight 3 pounds
best sleeping-bag has pure eider-down filling and "walled" quilting. Eiderdown compresses for packing, yet expands with warmth of the body
BW

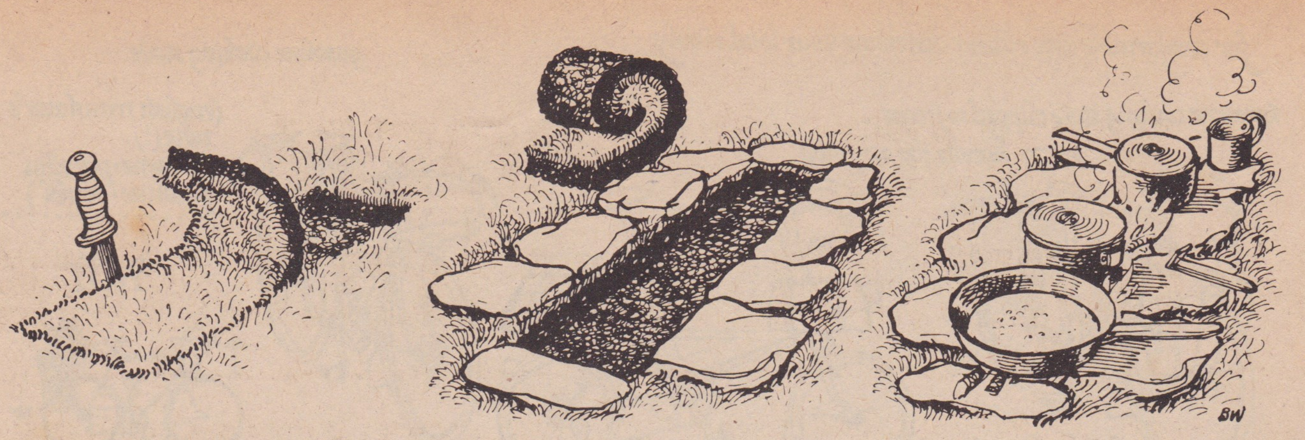

for comfortable safe riding distribute your load evenly
kerosene cooking stove clipped to frame
handle for carrying
fuel bottle - away from rest of load
gasoline cooking stove
(english translator's note(!).
kerosene=paraffin
gasoline=petrol)
NOT
BW

dishes the novice will take a polythene bowl, a squashy plastic thing of detergent, a dishcloth and a pan-scourer, heat up a kettle of water on a gas stove, pour the water into the bowl and put the bowl on a wobbly folding table. The lightweight man, once he's served his meal (and he should know how to cook and eat well!) will have already put back on to the fire the biggest pan he's used in his cooking, and by the time he has eaten, the water with be hot enough. Rock-grown moss or sandy turf are excellent pan scourers and his table is the hot firestone. The novice will have used *seven* unnecessary pieces of equipment, taken longer, worried about where he's put everything and insulted the landscape with his town-made toys. And that's just washing up!

Myself, I am a medium-weight cycle-camper, yet for such camping as I enjoyed, crossing the volcanic deserts of Iceland a few years ago on a four-man cycle-camping expedition inclusive of winter-weight clothes, stoves (no wood for fires in Iceland!) fuel, cameras, food stores, etc., we each carried a maximum of 35 pounds—this we considered excessively heavy. Compared with the elderly man we met there who had all his gear in his pockets and a tiny angler's pouch, or the couple who could reduce their bicycles and camping equipment to the 40 pounds air travel limit each, we were ponderous, indeed.

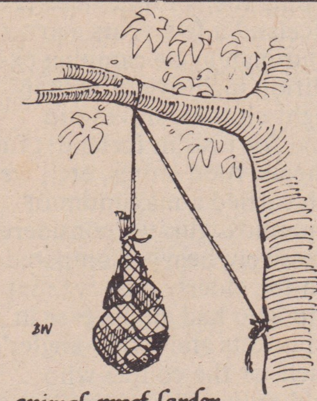
So much for equipment—now how to use it. The worst time in the cycle-camper's day is when he has to decide where to pitch camp. There's always the possibility of somewhere better, just a bit further on. (For the sake of this article I'm ignoring organized camp sites.) Ideally, one should camp far away from roads and houses, on gently sloping ground, never in a hollow or too close to a stream (those are my priorities, anyway—when camping, I dislike the thought of cars, house-bound people and flooding!) Pitch your tent in the down-wind shelter of trees by all means, but never under trees—heavy drips after rain will soak your tent, and wood-ants and mosquitos will invade you. Check your proposed bed-space for rocks or other protuberances. You're not going to need a sissy air mattress to lull you to sleep after 70-80 hilly miles—a few pine tree fronds and a spare sweater under the hips and shoulders should be the extent of anyone's cossetting. Pitch your tent with its door facing east, so that the morning sun will


trees provide shelter from prevailing wind
tent doorway faces east to greet morning sunlight
campfire a sensible distance and downwind from tent
dry dead wood for fire
gently sloping ground ensures good drainage in wet weather
tent pitched well above possible flood-level of stream
springy turf is the best mattress
"grease-pit" marked by upright stick.
stream supplies drinking, washing, and swimming water. Also fish, and flat stones for the fireplace (don't pollute it!)
BW



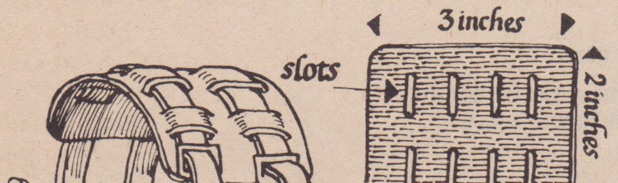
making a trench fireplace

revive, warm and dry you. Local climatic conditions may force you to vary this rule. Ideally choose a site where your view is agreeable. Your fire should be sited down-wind of the tent, its immediate area cleared of dry brushwood or inflammable dead grass. A trench fire is best—about two feet six inches long, ten inches wide at the upwind end, four inches wide at the down-wind end. With the big sheath knife cut out the turf as deep as you can to these dimensions. Edge this trench with flat stones (not granite, it explodes) or green logs. Put the piece of turf somewhere handy for replacing when you strike camp. Your cooking pots will rest on the stone or log edges of the fireplace. A low bright fire is best to cook with, so collect dry wood-dead branches on trees are usually the driest. De-turf and excavate a nearby "grease-pit" for your kitchen waste. Cooking is a subject all of its own, and excellent meals may be prepared with the simplest equipment. With experience, appetizing and elaborate meals can be cooked in the bleakest conditions on a couple of half-pint kerosene pressure stoves. All my cooking equipment, mugs and plates, etc., are of aluminum; it's light, strong, easily cleaned and fireproof.



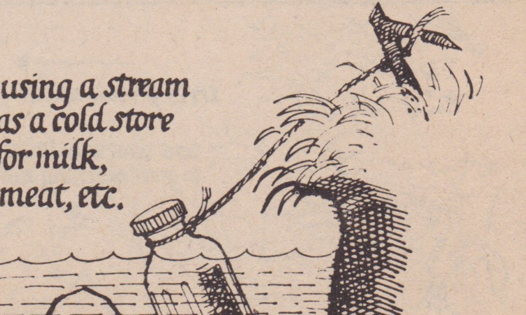
animal-proof larder

Before turning in for the night—usually after a prolonged yarning session with my companion in the warmth and light of the enlarged campfire, I put sufficient dry kindly wood under the eaves of the tent to start the fire next morning. If an early start is planned, I don't bother with a morning fire; the porridge, bacon, eggs, and tea being boiled, fried and brewed over the kerosene or gasoline pressure stove. Without making odious comparisons (as they say) one filling of my half-pint kerosene pressure stove lasts exactly two hours; the stove weighs a matter of ounces, two one-pint aluminum feeding bottles of fuel clipped to the bike frame, away from the rest of the baggage, constitutes a further eight hours' cooking and warmth. And kerosene and gasoline are universally available and cheap.


3 inches
slots
2 inches
harness leather—plus two ordinary toe-straps
BW

Brian Walker's unbreakable toe-clip—ideal for the rough-stuff cycle-camper

using a stream as a cold store for milk, meat, etc.



YOUR GARDEN + NATURAL MULCHES = BETTER HARVESTS

BETTY BRINHART

When my parents migrated from the Ukrain region in Russia to the rich farm lands of Illinois during the late 1800's, they were already experienced organic mulchers...not from choice, but from extreme necessity.

Although the prevailing winds of the Ukrain could usually be depended upon to provide sufficient rainfall during the growing season, there were years when those winds completely failed the farmers and gardeners. The dry, scorching summers that followed could be just as cruel and devastating to plant life as the Sahara and crop failures and famine caused untold suffering among the inhabitants during the year that followed.

Although these simple Russians put their entire trust in God and Nature, they gradually realized that that was not enough to insure them a decent harvest every year...and they set about devising some means of minimizing the destructive force of the droughts.

One spring, someone tried using dried meadow hay as a mulch to conserve soil moisture during the summer months. The idea worked...and spread like wildfire. Soon everyone was cutting the lush, green grass in the meadows and along streams, drying it in the sun and storing it in neat stacks beside the family garden or orchard for use when needed.

When the vegetables were tall enough garden plots were heavily mulched with a 12-inch layer of the dried hay and more grass was thickly spread around fruit trees, berry plants and flowers. Soon, garden mulching had become a way of life, and - when one of the most severe droughts of all hit the Ukrain several years later - the mulched gardens came through with very little loss of production. Thus, my ancestors warded off a potentially-serious famine.

Having learned the hard way that good gardening and summer mulching go hand in hand, my mother gardened the same way in Illinois. Here, however, she ran into criticism from German-born neighbors who believed in 'clean' gardening. They didn't want any 'trash' (as they called my mother's mulch) in the aisles to spoil the beauty of their straight, well-cultivated vegetable rows.

Although the neighbors laughed at my mother's 'sloppy' gardening, she said nothing...but neither did she change her methods. Then, as sometimes happens in Illinois, a prolonged drought hit and not one drop of rain fell for *two full months!*

The German gardens withered and died but my mother's, which was heavily mulched with old hay, went on growing as usual and that fall she could often be seen strolling down the lane to one neighbor's house or another with a basket of carrots, potatoes, squash or apples. The neighbors, grateful for the fresh produce, apologized for laughing at Mother's gardening ideas and began asking questions about them. Before long, with my mother's help, almost the entire neighborhood turned into one gigantic organic garden!

WHY A GARDEN MULCH IS NECESSARY

A mulch is a layer of organic matter of variable thickness, used as a soil cover to control weeds, preserve soil moisture and improve the fertility and structure of the soil itself. If you're energetic enough to keep a natural mulch on your garden throughout the year, you will be doing just as Nature has done since the beginning of time.

Try as you may, you will not find naked soil in the wilderness. If it isn't covered with a lush carpet of ferns, wild flowers and vines, such soil is hidden beneath a thick blanket of dried leaves and decaying wood and beneath the cover is a layer of organic matter in all stages of decay. This is Nature's way of building rich top soil.

You can create such rich dirt in your own garden (without spending a cent) from unwanted plant materials and aged manures. Heavy applications of compost (made from shredded garden trash, leaves, man-

(continued on next page)

Pepper plants do extremely well and set a good crop under a thick mulch of straw or dried hay.

(continued from preceding page)

ure or green lawn clippings) and manures of all kinds for three years will give you almost one inch of rich new topsoil. It takes Nature 100 years to do the same.

MULCHES GOOD AND BAD

Although plastic mulches are highly advertised, we won't use them in our garden. In the first place they cost money and, second, they do not improve the fertility, or condition, of the soil in any way. Among the natural mulches that we do use are shredded corn stalks, pine needles, peat moss, spoiled hay straw, salt hay, green grass clippings, shredded newspapers and young weeds that have not yet gone to seed.

Although mulches may be purchased, I advise you to look around before spending your hard-earned cash on the store-bought variety. Most natural mulching materials can be obtained free of charge from parks and streetcleaners and grass clippings are always available from homeowners only too happy to be rid of them. Units mowing along highways will allow you to rake hay from the embankments, and the telephone and power company men who prune tree branches will usually give you all the shredded wood you want.

Check your local lumber yards for wood chips and sawdust. In the spring, farmers will sometimes let you have leftover hay or straw just for cleaning out their lofts or barn lots. (Look for unwanted cow manure here also.) Often you can find a nearby unused lot or field from which the owner will let you cut all the tall grass you need. And don't forget to check factories in your neighborhood. Many throw away plant and animal products that serve nicely as garden mulches. If you gather more than you can use immediately shred the excess with a shredder or rotary mower and make compost. You can't buy a better garden fertilizer for all the money in the world.

THE ADVANTAGES OF MULCHING

All types of gardening benefit directly or indirectly from mulching and through practice you'll learn what type of mulch and what thickness is best for every plant. Keep in mind, however, that acid-loving plants, such as Rhododendrons and all evergreens, prefer an acid mulch like peat moss or pine needles while non-acid-loving plants, such as most fruits and vegetables, prefer dried hay, grass clippings and other non-acid mulches.

There are many advantages to using mulch in your summer garden. For instance:

1. All natural mulches conserve soil moisture. With a constant supply of moisture about their roots plants grow steadily. This produces more robust growth, bumper crops of tastier fruits and vegetables and bigger flowers. A mulch can also save valuable plants during heavy droughts when there is no water available for irrigation.
2. In dry, arid regions a mulch will prevent rain and wind erosion. And when rains do fall in such an area the water is quickly absorbed by the porous earth beneath a mulch. As an added bonus, this rain carries free nitrogen which it absorbed while passing through the atmosphere and the free nitrogen becomes immediately available to plants as food.
3. A good mulch controls all annual and perennial weeds. Should a weed appear it can easily be pulled by hand from the soft earth below.
4. All soils, no matter how fertile, can stand a little improving. Organic mulches quickly decay, merge with the topsoil and enrich it with plant nutrients. As soil particles absorb the decayed organic matter, they become more crumbly in texture. This creates air spaces through which oxygen can reach the roots and improves water penetration. The aeration and penetration of water stimulates root growth and biological activity in the soil and the result's greater soil fertility.
5. A thick mulch is also an excellent controller of soil temperature. Soil bacteria, which are constantly busy releasing plant nutrients from mulch and applied fertilizers, work best in a soil temperature of 70 to 85 degrees F. When temperatures drop below or rise above this mark, bacterial action slows down or stops completely. A good mulch will maintain the right working temperatures for soil bacteria throughout summer regardless of outside conditions which, again, means your soil will steadily increase in fertility.

6. When well-aged manures, tobacco stalks, soy bean hay or grass clippings from well-fed lawns are used as mulch, very little or no fertilizer is needed throughout the gardening season. As these different organic products decay, they slowly release all the nutrients a plant needs for good growth without burning its delicate feeder roots.

7. Mulches do wonders in protecting the shallow roots of such plants as blueberries, Azaleas and Rhododendrons. Without a mulch, these plants must be cultivated. Deep cultivation, however is detrimental to their health since even the slightest scraping of the surface to control weeds will sever a multitude of valuable feeder roots.

8. A 6-inch mulch of ground corn cobs, wood chips or sawdust placed in the garden aisles, or paths, will enable you to walk in your garden immediately after a heavy rain without compacting the moist soil or getting your shoes muddy.

Mulch placed under individual squash, melons or pumpkin plants eliminates fruit rot due to direct contact with cool, moist soil and soil insects. It will also prevent the fruit from getting splattered with mud every time it rains.

9. A natural mulch is invaluable in areas that suffer from great fluctuations in winter temperature. Properly applied after the ground freezes hard in late fall, a mulch will prevent the alternate thawing and freezing of the soil that can completely destroy root systems of even the strongest perennials.

Mulches will also prevent deep freezing around less hardy plants and will help to keep the soil from freezing in bulb beds where late plantings must be made in early winter. In such cases, mulch is removed to allow the bulbs to be planted, then it's replaced after the area freezes hard.

REMEMBER THESE FACTS WHEN MULCHING WITH NATURAL MATERIALS

A. Mice will often nest under a mulch beneath low-hanging branches. If left undisturbed they will eventually feed on bark during the winter, and cause serious damage to your trees. Either place traps beneath any mulch in the orchard or keep the mulch at least 12 inches away from the trunk of each tree.

B. Dry mulches can be a fire hazard in dry weather. Be careful about lighted matches and discarded cig-

(continued on next page)

Although melons like a warm soil, all but the hills should be mulched with any dry, natural material at hand. Straw, hay or dry grass clippings will conserve soil moisture and keep weeds from crowding vines.

(continued from preceding page)

arette butts if you smoke while working in the garden.

C. Natural mulches, such as sawdust, green grass clippings and fresh hay, cause a nitrogen deficiency in the soil for a short period after application. During this time, plant growth suffers. Although the condition is never very serious, it can be prevented entirely by scattering a natural fertilizer high in nitrogen (animal manure, bloodmeal, bone meal, tankage or sewer sludge) over the surface before putting down the mulch.

OTHER USES FOR NATURAL MULCH

By practicing these additional uses of mulch in your garden you can add to your gardening enjoyment and success.

I. Apply a thin, finely-chopped mulch over a seeded row (such as carrots) so that weeds will not choke out the young seedlings before they get started. Remove as soon as green shows beneath the mulch.

II. Allow a mulch to remain on light, sandy soil all year and plant under it. But the mulch must be removed in early spring from heavy soil so that such earth may dry off quickly for early planting.

III. Do not mulch transplants, such as tomatoes or peppers, until they are well started.

IV. Never mulch tall annuals as it causes them to set shallow root systems which are inadequate for plant support during heavy rains or strong winds.

V. Heavily mulch all plants that prefer cool soil temperatures throughout summer, but mulch only the aisles of those that like warmth.

SUMMARY

There is no easier nor cheaper way to improve your soil's texture and fertility than by using natural mulches in your vegetable and flower garden. Using a mulch is like having someone do your gardening for you free of charge. There's no water to haul, no weeds to pull and no fertilizer to spread. And, should you want to take an extended summer vacation, you need not worry about coming back to a garden choked with weeds. When you mulch, your harvests will be far greater and your fruits and vegetables will have a better flavor and higher nutritional value.

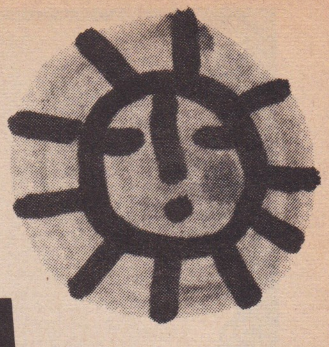
So do yourself a favor this and every summer by letting natural mulches do your gardening for you.

Snap beans double their yield if aisles between rows are heavily mulched when plants are 12 inches tall. Green grass clippings are excellent here. No need to dry the clippings if they're not applied too thickly.

If your soil has a tendency to pack hard in summer, there is no better natural medicine than wood chips to keep that dirt loose and porous. Use the chips like any other mulch, especially on garden paths and in heavily traveled areas. Best of all, like many mulches, wood chips are free for the hauling in most regions.

Report From Them That's Doin'

ROBERTA HAMMER



COON RUN FARM

This year's gardens have been a little disappointing. We've had a strange season with no early rain (the seeds wouldn't germinate), then a lot of rain (the weeds grew 6 inches a day), then no rain again (the ground dried and cracked). But all our disappointment is not nature's fault. What we did, folks, was to bite off more than we could chew. We prepared too much garden, bought too many seeds, and spread ourselves too thin. If we had concentrated on less, we'd have had more return for our efforts. Keith's folks put up more food out of their tiny little garden in town than we can out of our half-acre mess. I guess you have to grow into being a gardener.

All is not failure, however! The weird weather must have been beneficial to potatoes, cause we have a LOT. Also we have good carrots, tomatoes and Jerusalem artichokes. And we have a healthy start on next year's strawberries and raspberries. But we're gonna stop saying that we're raising all our own vegetables until it just happens . . . until our soil has grown in fertility . . . until we have grown in knowledge and in stamina.

Right now we're planning a late garden of green beans, turnips, beets, lettuce, radishes and kohlrabi. They won't do very well unless there are good fall rains, but it seems worth the gamble.

The chickens brought us more disappointment this summer. Critters ate most of them. We just haven't learned the secrets of building an escape-proof chicken yard. But we refuse to be intimidated by the fox, weasel, raccoon or whatever and we've gone in with some neighbors to buy an incubator in order to hatch our own eggs. And we'll keep workin' on the chicken fences!

The rest of the poultry scene is looking up. The geese hatched and raised 9 goslings to maturity. The goose family has been so beautiful to watch—the parents guarding the young, signaling them to stay close together—all waddling in a group to the pond to swim. Everyone should have a goose family and absorb some goose-knowledge! We aren't farmer enough to EAT any of these geese we revere so highly but we can sell all we raise for $15 a pair at the city market.

We've bought ducklings to raise, too. They're brown with blue wing feathers and silly feathers sticking out on the backs of their heads. In trying to justify the purchase of the ducks (which we probably won't eat either) I will say that we expect to eat their eggs!

We're trying rabbits, too, and we'll see whether they prove to be pets or food. It seems that we're turning the HAVE-MORE Plan into "have more mouths to feed".

We really believe that lower life forms are on earth to serve the higher, so we haven't any religious compunctions against killing animals for food. We do believe, however, that those who eat meat should take the responsibility for killing it. It's just that we aren't used to that end of the bargain yet . . . and after it's done, we haven't much appetite. This is probably our biggest problem of adjustment to farm life.

In the goat department, we sold our little buck cause (you guessed it!) we didn't want to eat him. Three of the does are OBVIOUSLY pregnant, so it looks like the time is coming when I'll have 4 goats to milk. We've had several people stop and ask to buy goat milk—a lot of ulcers around?—so we can probably sell our surplus. (Did you notice that I said "probably sell", not "*will* sell" . . . slowly I'm learning not to count the chickens before they hatch.)

We've built a big bio-dynamic compost pile of the manure we cleaned from a neighbor's barn and we've asked for cleaning-out "privileges" again. Pitching manure is about the hardest, grimiest, smelliest work we've ever done . . . but our soil needs it desperately. And our soil is where it's at!

Personally, our future economic independence depends on the state of our farm's soil. And in a broader sense, an ecologically-balanced soil is the basis for an ecologically-sound world. When you think of it that way, it's a little easier to fork the manure around. You can feel like you're sweating for the future of the world.

We've mapped out more or less definite plans for making our livelihood on this 24 acres. Those plans include a nursery and landscaping business and a greenhouse for growing and selling garden and bedding plants. Keith likes planting trees better than any job he's ever done, and he's learned what trees and shrubs are good for what purposes and locations. The first thing we have to do is order and plant a variety of seedling trees and bushes and get them started toward landscaping size. One important problem we'll have to solve is water . . . we'll need a big pond or a deep well for that.

When Keith's not working at the nursery, building on the garage, gardening, or out on the tractor—and when I'm not cooking, cleaning, baking, freezing, canning, mulching, mowing, mothering, milking, feeding, watering, visiting, or writing—we try to remember last January and how bored we were cooped up in the house.

ECOMMANDO
TACTICS
ROGER
LOVIN

A couple of weeks ago I got a letter from a reader of my column, *ECOMMANDO TACTICS*, which appears in the L.A. FREE PRESS. The reader—George Tucker—wrote, in part, thus:

> During the past eight months I have quite frequently ridden my motorcycle on the Pomona Freeway from L.A. to Pomona and back. Very early it struck me that I lost power at the intersection with the 605 Freeway, so much so that I usually pulled over to the right hand lane, minimized wind resistance and hoped for the best. During most of this time I knew the engine wasn't working properly but I thought that it had just reached a point of warming up at that place, thereby causing some reaction . . . and that perhaps I was hitting a headwind coming from Pomona.
>
> Then I removed the instruction manual from its position blocking the air intake and made a few more trips. Now the machine functions beautifully on both sides of the intersection but still loses most of its power at the same place.
>
> I couldn't understand it at all until last weekend. Then—in the midst of reading the Nader Task Force report, *Vanishing Air*—I made a trip to Pomona after running a few errands in L.A. and definitely getting the cycle well worked into the groove and running smoothly.
>
> Coming back, I took the San Bernardino Freeway, which is more crowded and more polluted than the Pomona and the machine developed even less power! When traffic got particularly heavy I actually had to gear down!
>
> Right! Who says machines are dumb? They have more sense than humans when it comes to pollutin'; when things get too bad they just stop running! No wonder new cars need more horsepower than old ones: they have to compete harder for oxygen, just like you and me.
>
> I suggest that all your readers take notice of these effects next time they travel the freeways; it's easier than looking at a piece of lung tissue.
>
> By the way, can you recommend a good gas mask?

Well, the more I thought about George's letter, the less ridiculous it sounded. But my inate scepticism wouldn't let me take it at face value. Accordingly, I booted and helmeted, fired up the trusty Honda and tooled on down to Pomona. I made runs on that freeway: one during the evening rush and another about eleven-thirty at night.

And damned if George isn't right. I DID lose power during the heavy-pollution times. And the loss was greater in high-concentration areas (overpasses, stall points, feeder sections, etc.) than in low.

I came home and thought about it. Could other factors be involved? Was air pollution itself actually responsible for my power loss? What were the possibilities of the loss being caused by the bike itself, or by some unnoticed physical factor . . . a very slight uphill grade, for example, too small to notice by eye yet with an accumulative inertia sufficient to slow my motorcycle's engine?

Pondering all this, I soon realized that my mind was in deeper than my training could back up. So I picked up the phone and hollered for help.

Help came in the form of a couple of friends who are measure-and-analysis freaks from the University of California at Irvine. They wired me and the bike with various nefarious devices and we made for the concrete cowpaths once more. Then, looking vaguely martian, trailing sundry wires and connections and followed by a pickup full of recording equipment I took off down the road.

Surprise! No significant power loss due to air pollution! Then we tried it again on Monday. In the traffic.

Engine performance down TWENTY-ONE PERCENT. Carburetor efficiency down almost forty percent. Estimated engine-life loss: twenty percent over a one-year period.

Well, it's bad enough to think that my loyal two-wheeler is going to die before I can afford to convert it to steam. It's even worse to think of the increased pollution it emits due to bum carburetion. But it is infinitely worse yet to realize that I can replace the bike, BUT NOT MY LUNGS!

Like other forms of lung pollution, smog is tolerated because we all think that we'll get out of the city before it gets us . . . or that the government or Ralph Nader will clean things up in time. But it ain't so. Every breath you take in this atmosphere shortens your life by a couple of breaths.

It's like that great American institution, the time payment; you feel as though you're getting away with something because the bill doesn't come due till later, and it comes in small, painless bites . . . but in the end you find that you've paid for your fun twice over.

And Brothers and Sisters, the bill ALWAYS comes. There's no way to dodge it. The collection agency here is that dude with the scythe, and he never misses. NEVER. In the case of lung pollution, time is the coin, and time is the price. You pay for ruined lungs in life itself.

Now, what are we going to do about it?

If you've been using natural methods to rebuild run-down land—as so many folks are nowadays—sooner or later your orchard and garden will begin to produce steady bumper crops. And, once you have more produce than you have dollars, you'll begin thinking about trading some of the first for a supply of the latter.

But just how do you make that trade happen? Is there a law in your state that can keep you from selling home-grown fruits and vegetables door to door? Will you need a tax number? Do you have to mark and package your produce in any particular manner? What's the best way to approach potential customers . . . and where do you find them? How should you dress?

Well, our back-to-the-land family has been peddling produce door to door in Washington state for several seasons now and we have a few field-tested answers to the questions that can seem so terrifying in the beginning. Perhaps our experiences will help you tap the ready market we've found for naturally-grown fruits and vegetables . . . and turn you on to a welcome source of homestead income.

In our opinion, no greenthumber should ever set out to sell excess vegetables, fruits, nuts or berries without first checking with the Department of Agriculture or Fruit Commission of the state in which he lives. Just drop 'em a note . . . that's all it takes. The folks who receive your letter will route it to the proper agency (and that can take weeks, so start making your contacts a long time before harvest) and the agency will advise you of all the ground rules that apply in your case.

Here in Washington state, several laws quite obviously protect the big orchards at the expense of both the little growers and the consumer. For example, to haul another gardener's produce with our own, we must purchase something called a *cash-buyer's license.* If we sell more than a specified number of boxes of fruit or vegetables to one customer, we're required to pay a state inspector to examine the load. We must also buy a peddler's license for the appropriate area if we wish to make sales within the incorporated limits of a city . . . or else run the risk of a heavy fine. If your state imposes a retail sales tax, you'll find that it's also vitally important for you to obtain a *tax number* in order to make retail sales (and collect the tax commission's loot).

There are ways around most of these restrictions, however. If your state is really heavy on the red tape, for instance, you might even consider selling out of state. We once wrote Montana's Department of Horticulture. The agency helpfully mailed back explicit instructions for marketing produce in that state and we found that it definitely is worth our time to sell fruit in Montana.

You may even find that the wording of some peddling regulations is more scarifying than the enforcement. For example, in almost every town in which we've sold, at least one local supermarket has reported us to the tax inspector . . . thereby helping us make a sale. For every tax inspector that has stopped us has asked how we were doing, snickered about the tattletale market that called him . . . and bought some of our produce! In one small town, it was a groovy marshal who asked if we had raised the fruit and inquired about our tax number (we have one, by the way). "Say, those are the prettiest apricots I've ever seen," he added . . . and gave us his home address where his equally turned-on wife bought eight boxes!

Another time we inadvertently crossed the invisible line into incorporated city limits while out selling. That could have been serious because—since we honestly intend to knock only on doors outside such limits—we've never purchased a peddler's license. Luckily, the cop who caught us was a fruit lover and, contentedly munching cots as if they were popcorn, cordially pointed out the dividing line and shooed us back to the other side.

When we first started peddling produce, we made the mistake of wearing college clothes (for the quaint reason that we didn't want strangers to think we needed money!) Very shortly, my wife went on strike. "These awful patent leather shoes scuff before we're halfway through selling a load," she said, "and I can't bend over in this tight skirt. I'm going into town to get some sensible clothes."

So right into an unincorporated town we'd never before visited went the fruit-loaded pickup . . . and determined young Mrs. Foraker had her new pedal pushers and cool canvas shoes on in time to greet the druggist, baker and hardware store owner who were quickly attracted by our produce. They all bought fruit and insisted we stop at relatives' homes. We sold out in no time.

We learned two things that day: (1) Be comfortable and (2) Good customers are easily found in the small business districts.

Sincerity outranks appearance. Our best friend, Betty, always made her rounds wild-haired and barelegged and wore only a shapeless shift over 180 pounds of shortness that was unrestrained by underwear. She outsold everyone.

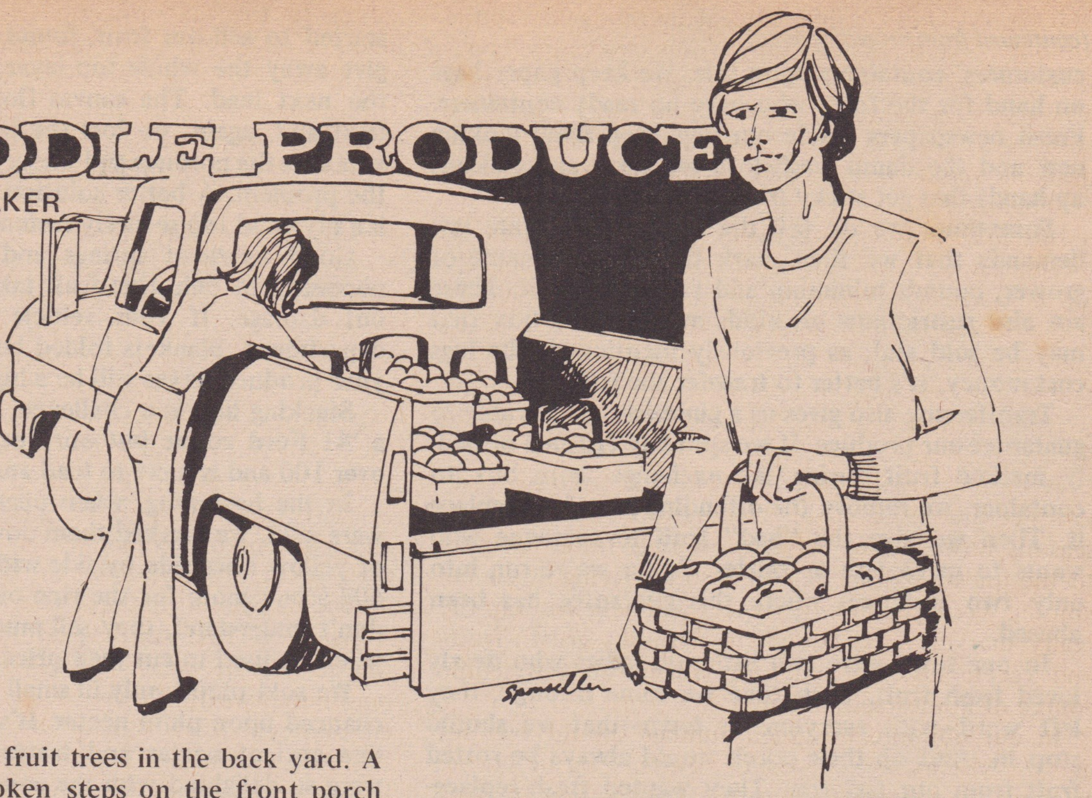
Betty's secret of success was her warm heart. She never felt the business of selling fruit was more important than making friends. She never acquired that panicky look that can be so easily caused by a load of fruit in hot weather. She taught customers how to make apricot nectar and that your own always tastes better than the best in the store. She carried along little jars of home-canned goodies and spooned them into interested people. To strangers, she passed out samples of her own pickled pears, cots canned whole, pickled cling peaches and canned whole peaches. Betty is gone now, dang it, but I'm certain that many housewives, home canners and fruit lovers remember her most fondly.

It's absolutely impossible to predict which houses will buy fruit. A neat yard often indicates a canner . . .

HOW TO

PEDDLE PRODUCE

DAVID FORAKER



but it can also mean fruit trees in the back yard. A torn-up lawn and broken steps on the front porch might very well signify that many children live in the home and their harried mother could well be waiting just inside the door, anxious to buy half your load.

When I walk up to a house I've never before visited, I knock and—when the door is opened—say, "Hello, I'm selling peaches and pears." The housewife probably has seen our pickup coming and already has an idea whether or not she wants fruit. If she asks about variety, price and when our produce was picked . . . she'll usually buy.

We often carry several varieties of apples and cots. If the customer comes to the truck and says, "Oh dear, I don't know which to try," we let her sample each. We tell her about the varieties we prefer fresh and the ones we like for nectar, drying, canning sliced and canning whole. We also mention that other families sometimes have other preferences.

If the customer can't make up her mind and only wants to buy one box of fruit, we mix equal amounts of different varieties and mark them for her. Folks appreciate this extra service and soon get quite expert on specifying the different varieties themselves.

Word of mouth is the single most important key to selling fruit or vegetables. If your produce is fresh and ripe and your prices reasonable, the whole town will soon know about it. I've gone into a brand new community just to sell to a relative of a client in the last town . . . and ended up marketing my whole truckload by going to the houses that each buyer suggested I visit. Word that our produce was worth buying had preceded me.

Now, of course, we know our regular customers as well as we know our neighbors but when we started out we remembered them by jotting down their addresses and little notes: "Hates cots, loves peaches." "Not home Wednesdays." "Makes jam." "Save five boxes of little Red Elbertas for this one."

We also wrote the names of children and pets on those notes so that—on the next call—we could ask, "Where's Richie today?" or holler, "Hi Baron," just as the huge German Shepherd knocked us flat. People appreciated our thoughtfulness in remembering their households by name and, after a few trips, the notes were no longer necessary. In addition, we found that listing only the houses that bought saved us much time on each later trip.

Because we return to the same neighborhoods every year, we keep our prices as low as possible. Inflation last year forced our price for a 20-pound lug of fruit up to the $1.50-$2.25 range but some growers charge $2.50 to $4.00 for the same lug and markets often get two to four times our price for fruit picked green. We pick the morning of the day we sell and our prices are right and our customers know and appreciate it.

We started out—wrongly—using one size box and carrying scales for people who wanted just a few pounds of produce. Now we have four box sizes (including a very small one that holds about eight pounds) and we do no more weighing. We fill the boxes level—so we can put another box on top without crushing any fruit—and sell that amount for a set price. Fruit constantly settles and we've found that it's the best policy to start a sale with the boxes low and "top them off" right under the buyer's nose.

Since cardboard lugs cost about 25¢ each and wooden boxes even more, we help hold the line on prices by displaying our produce in cardboard lugs but—whenever possible—putting the fruit over into the

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customers' containers upon sale. We keep paper bags on hand for the folks who have no ready containers. Fresh newspapers inside our lugs keep them looking new and the damp washcloth we carry along cleans up hands that get sticky from handling fruit.

Sometimes we do sell the boxes but a state law demands that we then mark the lug with name of grower, pounds minimum and variety of fruit. There are also restrictions on kinds and sizes of box that may be sold and, as previously mentioned, the lugs cost money. It's better to transfer the fruit.

Transferring also gives us a gimmick: we are able to guarantee our produce. If we spot any crushed or badly marked fruit during the exchange from box to container, we remove the offending piece and replace it. Then we give the "bad" fruit to someone who wants to make jam or butter. So far we've run into only two instances where this guarantee has been abused.

In one town were two little old ladies who dearly loved fresh fruit. Each time we came through, they left word—with everyone in town—that we should stop in. And on their porch would always be rotted fruit from our last trip. They wanted fresh replacements . . . but they were sweet ladies and they always had coffee and pastry and much happy talk for our family so we obliged.

Another customer liked to purchase several boxes of cots, sort out only the very best and let the rest rot. Naturally, she demanded replacement produce on our next trip. We gave it to her, then—when neighbors on both sides warned us of this woman's chicanery—we simply made a note of her house and avoided it thereafter.

We also avoided supermarkets early in our peddling career, thinking that all such establishments would consider us to be competition. Then one manager opened our eyes by running us down and buying a whole truckload of produce. Supermarkets like to sell pretty fruit too, it seems, and many of our friends now find that their local markets will take all the fresh berries and vegetables they can get. I've even noticed that one such market places an "Organically Grown" sign above a friend's display, charges more for the vegetables . . . and sells them faster than the less colorful, insecticide-herbicide-contaminated produce alongside.

To sell to a supermarket just ask for the manager, tell him what you have and how much you want. He'll probably look at the produce and, if he likes it, tell you where to make a delivery. Two advantages of such sales are (1) you dispose of more of your goods with less effort and (2) the state considers you a wholesaler in one of these transactions and you don't have to hassle the retail sales tax on the deal. We always show our appreciation by skipping houses in the vicinity of the markets that handle our fruit.

Peddling produce is not always fun, games and easy sales. One 100° day we drove 50 miles and, when we started to sell our fruit, found it scalded. We had to give away the whole top layer. We tried canvas over the next load. The canvas flopped and bruised the fruit and, again, we lost the top layer. Putting blankets over the produce and under the tarp finally solved the problem. A better solution to both heat and rain is a plywood top securely fastened over the truck bed.

Good overload springs and shock absorbers are necessary to help ripe fruit take bouncy travel without damage. If your vehicle is under par in this department, blankets folded beneath the bottoms of your produce boxes will be a big help.

Stacking lugs is a challenge. We finally got 42 into a '41 Ford coupe but our Jeep pickup easily holds over 100 and is nicer to load and unload.

In the beginning, when pears ripened before they were sold, we marked them down. Now we place lugs of yellow ones side by side with the green and charge 50¢ a box more for the ripe ones. For some reason I don't understand, they sell much faster this way than when we used to cut their price.

We sold plums only in small boxes until our family chanced upon plum nectar. It's rosyish, made exactly like apricot nectar and tastes like prune juice. We were so delighted with the concoction that we passed the idea along . . . and we now sell several large boxes of plums to many of our customers.

We peddle our produce in about 10 small towns and we can sell up to 50 trees of each fruit we handle. A neighbor of ours finds that he can do very well selling his two acres of naturally-grown vegetables right in his home town. The market is definitely expanding for fresh homestead produce and "naturally grown, no chemicals or pesticides" is an *extra strong* selling point that, happily, seems to get even stronger each time another community bans DDT.

By the way, if peddling scares you, you can always sell your naturally-grown fruits and vegetables from a roadside stand. If you don't have a suitable location, make a deal with a friend or customer who does. We sell much of our fruit right on the highway this way and the main secret is an attractive stand and lots of room to park. The best signs, we've found, are white with red letters. Since harvest dates can vary from year to year, we keep a mailing list of past customers and always advise everyone of the date a new crop will ripen. This virtually guarantees a sellout.

In our opinion, though, peddling is too much fun to miss . . . especially if you make it a festive family affair. Matter of fact, it's even more fun if you let outsiders get into the act. The more, the merrier. When we noticed that our toddler son, Dave (who was ringing doorbells because he dug it), was selling as much as his mother we decided that the more door-knockers we had, the better. Now, when we come across a likeable youngster or two, we take them along (after asking their parents, of course). Later, when we bring the children back we pay them and give their mothers a box of fruit for the help. This way, our peddling trips become a grand adventure for everyone.

Report From Them That's Doin'

THE PEACEABLE KINGDOM

NANCY BUBEL

The fence around one corner of our Peaceable Kingdom sags a little and the gate is made of an old screen door and pieces of lath saved from repairing the kitchen. Elegant, it's not. But then elegance never really was one of our things. It keeps the goat people in what we think of as their place.

Their idea of their place has more to do with pruning the orchard and browsing along the hedgerow. Still, they seem happy here and we tell them they're lucky to have a cozy shed that the sun shines in, with manger space for all and the option of going out into their own yard at will.

We've noticed that larger, more professional herds are often, necessarily, very closely confined. That doesn't prevent us, though from dreaming of a big capacious barn with room for cats and broody hens and hay and all the goats we could name. And we could name quite a few! Each goat we meet seems to be like no other and we're already looking forward to next kidding time and speculating on what we'll get.

In the other corner of the Peaceable Kingdom we have . . . pigs. Got them in the spring as feeder pigs. Funny fellows. We haven't named them, since we intend to eat them and know the parting will be tough enough as is. Mike says "Man is the only creature who makes friends with the animals he intends to eat." How will our OWN ham taste? I hope we'll be able to enjoy it! We talk about butchering them ourselves but we really haven't the equipment, much less the whole idea of how to proceed. It would be good to do it cooperatively, if only we knew some other amateur pig raising cooperators!

The pigs are fenced in adequately for now, away from the goats. But we know the fencing won't last when they're stronger and rooting more. We've been advised to either ring their noses or to put in a low strand of electric wire. We lean toward the wire and someday soon—however reluctantly—we'll get one strung.

We hope that as much as possible the pork will be OUR pork. That is, fed as many home-grown meals as we can provide, as unchemicalized as we can get it and positively without hormones and antibiotics. We bought a bag of hog feed, but give the pigs only a canful a day, often mixed with skim milk. The rest of their chow is dandelion plants—greens, flowers, root and all—and table and garden scraps. They've learned to like these and they do seem to be growing! Also, they're pigs for comfrey and will eat all we give them.

I had never felt a pig before. The goats are bony, but they do have some give to them. But the pigs have no give at all . . . they're so solid that it's really funny.

The goat kids still get their three bottles a day and their little noses poke out between the slats of the gate to remind me when it's time. They really could be weaned but since we have plenty of milk, we figure we'll give them a good start. We'd like to breed them early, at 9 or 10 months, and the milk will help them to develop a sturdy frame to carry the early pregnancy.

The kids eat hay, weeds, spent flowers and goat chow. When the sun is hot they curl up together in the shade, chewing their small cud. They look so solemn then . . . and peaceful too. And when we fork out the bedding from the goat shed, they play "King of the Mountain" on the pile, full of wild leaps and springy jumps. Goats are such fun.

Visitors sometimes wonder how (and why!) we get it all done . . . the manure spreading, hay making, yogurt incubating, canning, animal feeding . . . How can we tell them? Anyway, if we weren't doing this, we'd be going to some inane meeting to make ourselves feel useful. As it is, we feel that caring well for our own corner of the earth makes sense, and we'd rather DO it than sit and talk about what *should* be done.

Meanwhile the borage is blossoming and we think again . . . we really *should* have bees. Could they buck our strong west wind?

Weeds are at the stage now that we just couldn't believe back in April and May. Slabs of spoiled baled hay between garden rows has helped a lot, but there's still plenty of fox thistle, amaranth, mallow and smartweed punctuating the rows. It's some consolation, though, that the goats relish most of this volunteer growth. Adds another dimension to the chore of weeding. We wrench off the roots as we weed and gather basketsfull of tossed salad for the goat people.

We put in about twice as many peas this season as we did last year since we think they lose less flavor in freezing than beans do. We eat lots of peas fresh at meals in June and July too and don't even count the quarts we enjoy straight from the pod out in the patch. Picker's reward! Those are the sweetest of all.

July barrels on, hot and full of growth. We've just stopped cutting rhubarb. For the first time ever, this year, we had enough rhubarb. One of the ways we like it best is cooked briefly with honey and served cold over yogurt. Much more refreshing than ice cream . . . also cheaper and far more nutritious.

Soon we'll go camping for a week or two and we want to explore the wilds of West Virginia. Twelve year old Mary Grace developed an interest in folk remedies last year when we camped in the Blue Ridge mountains, so she'll be collecting and drying herbs as we roll along. All the window locks will be festooned with leafy bundles. Must remember to pack some string.

Peace, sun, shade and wild things to you all . . .

THE GROUP

ONE MEMBER'S DEBTS ARE THE DEBTS OF ALL AND EVERYONE WORKS FOR THE COMMON BREAD IN THIS ARKANSAS COMMUNE.

THOMAS BEVIER

Reprinted from MID-SOUTH MAGAZINE, The Memphis Commercial Appeal

The commune is beside a stream called Big Piney, in the hush of worn Arkansas mountains and fully five hours from the pace and pavement of Memphis. It is a place without address, unless you count the one assigned to it by the wife of the county sheriff. The commune is at "Four Two Plumb," says Mrs. Walter Looper. "It's over four hills, through two gates and plumb out in the damn sticks."

And so it is. To reach the commune, you drive down a rocky, packed-clay road five miles from Lamar, in Johnson County. You cross a long, complaining bridge of railroad ties and then turn into Big Piney Guest Ranch.

Preconceived notions suggested by the word "commune" lead you to expect long-hair youths in outlandish costumes, rebels who argue without reason, weaklings with drugs and sexualists without propriety.

But you are met by a neatly dressed woman, full-bodied and olive-complexioned, with a curly haired child at her hand. She walks to the car and greets you with . . .

A smile.

It is a smile that a Puerto Rican hair-stylist, dulled by her family's status struggle from the Bronx to Long Island, might have given her brother. Such is the case with Lyn Alvarez. She is 23, she joined the commune six months ago and now she grants her smile to strangers.

"Dixon Bowles, our leader, is not here now," she says. "He'll be back soon. His brother, Clayton, is here."

She stands near a large, log lodge. Nearby are two house trailers. Down by the river are four cabins and off in the distance, beyond a foot-bridge over a rivulet, is a barn converted to living quarters.

Clayton Bowles, who is 24, is wearing insulated overalls and a day's growth of beard. He leads the way to one of the trailers, the mass-produced residence of his brother.

"There are no drugs or sexual promiscuity here," he says. "Beyond that, we'll discuss anything."

As he outlines the history of the venture—its pragmatic beginning and philosophical evolution, the tragedies which have visited it—you decide that these young people might represent the precedent to the current phenomenon of the commune.

Not that they are really a part of that phenomenon, the groping out of hippiness which began in the second half of the 60s, after Haight became hateful. They were, instead, before that and through it and still in business—pleading hope for the future, invoking the dream of Utopia and earning their daily bread in common ways.

It is an unproven idea in this country, a radical idea without the harshness radicalism usually supposes. It is, in a word, a gamble, and the odds are not good. Those at Big Piney have accepted the gamble without pretention. In fact, they strive for simplicity. They call themselves . . .

The Group.

Several of the women have settled on the couches in the lodge, where most commune activities take place. They are watching a TV soap opera, and apologize for it. Bread is baking in the kitchen. Down the center of the room are cased books: Erich Fromm's "Escape From Freedom," "Hurry Sundown" by K.B. Gilden, Zen and all else of Eastern philosophy, Readers Digest condensed novels, "Great Operas," a trigonometry textbook, "Reading for Rhetoric," "Great Ideas of Psychology" and at least nine Bibles. There is even a book called "Shooting and Hunting."

One of the women is Mrs. Diane Eudy, 24-years-old, big with child and rolling cigarets so that all may cheaply enjoy what is referred to as "our single vice." She is from Odessa, Texas, one of the 12 original members still in the commune. Odessa is where it all started seven years ago.

"Dick—yes, I call Dixon, Dick—organized a singing group and I was in it," she says. "We sang folk and spiritual, foot-stomping music. My husband, Ed, and I were both in the original group and we went to Odessa Junior College, as did most of the others."

Dixon Bowles, a guitarist, started putting the singing group together in 1964. In 1966, they sang for Dan Blocker, the 'Hoss' of television's Bonanza, during one of his appearances at Odessa Junior College, where he had studied. He liked them and, although he did not give them financial backing, he allowed them to use his name. And so, later that year, they went to Hollywood on a chartered bus in search of fame as the Dan Blocker Singers.

There were 18 of them and they had $1,800. They rented a house and lived together because it was economical and because some of the members were underage and Dixon had promised their parents they would be strictly supervised. The Los Angeles Times discovered them and announced in a headline: "Commune of 18 Singers Lives Under Benevolent Dictator." Dixon Bowles continues in that role. In matters important and unimportant, his decision is final. His position is autocratic and, while discussion is encouraged, democracy is given short shrift. He is known to one and all as . . .

Our Leader

The door of the lodge opens and several young men enter. The shortest is a blondish, of wiry build and with the mien of junior executives. It came as no surprise later to learn that he was an honor student, runnerup for Mr. Odessa Junior College and disc jockey for the school radio station. You know the type, disciplined and bound to succeed, the sort who would tackle show business and end up with dates on the Milton Berle Show and playing a Reno saloon—which he did with the Dan Blocker Singers.

"THERE ARE NO DRUGS AND NO PROMISCUITY, BEYOND THAT, WE'LL DISCUSS ANYTHING."

"I'm glad you could come," says Dixon Bowles, extending a hand. "We'll eat in a little while and I hope you'll stay.

"How did we happen to come to Arkansas? It's really very simple. After we had been together in California, the idea of the commune—of living together and getting along—began to mean more than show business.

"One day, we saw a classified ad telling about the Big Piney Guest Ranch. We went by to see the man and then came out here to see it."

In 1968, after signing a lease for $400 a month, The Group moved to Arkansas. They took whatever jobs they could find. They worked as farm laborers, in a local pants factory and continued to do some singing. During the Arkansas gubernatorial contest, segments of The Group provided entertainment for Winthrop Rockefeller rallies. For a time, they operated a restaurant at the ranch, but that was not profitable.

Local people did not know what to think of them. Shortly after they moved in, local toughs paid them a visit, breaking

(continued on next page)

ABOVE: Dixon Bowles, the Leader of The Group.

BELOW: Karen Hershman, a commune member from Memphis, tends the group oven. The Group bakes about a dozen loaves of bread each day.

(continued from preceding page)

windows and defiling the lodge porch.

Mrs. Looper, the sheriff's wife, recalled the incident and the fact that after they sobered up, the trouble-makers—at the insistence of her husband—went by and apologized.

"It's a different way of living, and out in the country some people just can't accept anything different," Mrs. Looper says.

At first, there were rumors of drugs at the commune, and of a marijuana patch. But the sheriff investigated and found them not to be true. Mrs. Looper says that when The Group was running the restaurant, she and her husband and other couples went there several times. She said some of the patrons were disappointed to find that liquor was not allowed.

People still wonder about Big Piney. Even the commune's closest neighbor, Mrs. Katie Birkhahn, a half-mile up the road in a neat frame house, wonders.

"When they first came, we had more fun than Carter's got oats," she says. "But they kept coming, one right after the other. Oh, we're still friends.

"Some say they're communists, but I don't know anything about that. When I broke my arm, they came and set up with me. Not many folks will do that for you. They gave me a dog (a white German shepherd). It's name is Clayton. They don't believe in the Bible the way we do, but they haven't harmed anybody.

"Have you seen those girls down there? Some of them are beautiful. Why would they want to live like that? Are they married? I understand Dixon divorced his wife and is living with another woman? What about the children? I don't know what to think about it. And that's the truth."

The questions Mrs. Birkhahn asks are more provocative than the answers they beget.

The total strength of the commune is 60 adults. However, some of them have gone to St. Louis, because of a shortage of jobs in Arkansas, to earn money for The Group and to work in a church poverty project. Others are preparing to follow.

While we were at Big Piney, there were 48 adults—12 married couples, 12 single men and 12 single women. There were 10 children and three of the women were expecting.

Dixon Bowles tires of discussing the lodging arrangements at Big Piney.

"If we ever leave here," he says, "I'm going to buy a full page ad in the local paper and show them our sleeping arrangements. Since we've been here, there haven't been any arrests and no illegitimate births."

Single men and women have separate quarters and married couples live together. The rooms are, for the most part, small and nondescript.

"This past summer, we got a lot of visitors from other communes. They came here expecting to find a crash pad. They'd take one look at me and say something like, 'Man, you drip of authority,' and leave."

His own marital status is voluntarily explained. When he came to Arkansas, his wife was Tina, a pretty, black-haired girl he had known since Odessa. They were divorced and he married a bubbly blonde named Norma. They all are still in The Group.

"I understand you were asking about my divorce from Dixon," says Tina, midway in a conversation about the kindergarten program she oversees. (Visual aides and Montessori teaching methods are used extensively.) "I don't mind talking about it. There was no point in continuing our marriage. Dixon and I are still friends."

Tina, who is second-in-command of the commune, Dixon and members of The Group share concern for the future. At year's end, it was much more promising than now. Then they were preparing to manage a state-owned lodge on nearby Mount Magazine. They had purchased 400 acres of ground, also on Mount Magazine, and architects were drawing plans for buildings. And then came what Dixon Bowles refers to as . . .

The Double Whammy

The group had all its financial eggs in the Mount Magazine basket. On Feb. 2, the $275,000 lodge burned to the ground. And then, three days later, five of The Group were killed in a wreck while on their way back from Winrock Farms, where they had jobs.

> "IT'S NOT SOMETHING FOR EVERYONE. BUT WE HAVE BEEN SUCCESSFUL IN CREATING A MICROSCOPIC SOCIAL STRUCTURE WHICH ANSWERS THE NEEDS OF MANY PEOPLE . . . ESPECIALLY A LOT OF YOUNG PEOPLE."

The wreck left four widows—including Tina, who had married Angus McMaster only a month before. Also killed were Loren Norman, Sinon Tanjy, Tony O'Neil and Harold Jackson. Critically injured was a Memphian, 27-year-old Michael Alsup.

"These two things left us on the edge," says Dixon. They also tested both the financial and psychological strength of The Group. Judging from comments of some of the members, Group unity is in better condition than Group finances.

"I never could have made it after my husband was killed unless it had been for the help I got from the rest of The Group," says Mrs. Mary Jackson. "I never was a real stable person before."

Generalizations about members of The Group are difficult to make. After it has been said that most are in their early 20s and that most have some college education, few broad statements can be made. Capsule sketches of some of the members may help.

Mary Jackson and her sister, Mrs. Trish Peper, are from Minneapolis, the daughters of a county prosecutor.

"Trish came first," says Mary. "I was living in Dallas and I heard from my father that Trish had moved to Arkansas and was living with a religious group. To me, it meant long-haired hippies, LSD and pot. I came for a visit. When I got here, I found they didn't even look like hippies. It surprised me to find them functioning as a unit.

"When Trish joined, my father said, 'Well, we'd expect her to do it.' When I joined, he said, 'What?' He's visited and he was glad to find out there was no hanky panky and that I was being materially cared for."

One of the few beards in The Group is worn by Leslie Singer, formerly the drummer with a rock band called "The Unspoken Word," which came to Big Piney to write songs for a record album.

"I had gone to school with Paul Rossby (who heads the St. Louis project) and he told me the people here were good and that the vibrations were high," Leslie says. "We picked up and came on down from New York," leaving behind a life he described as "lower-middle-class, Jewish-Long-Island."

Sid Eudy is 22, one of three brothers in The Group. His twin, Stan, and his older brother, 24-year-old Ed, also are members. Their father is a police captain in Odessa and their mother is a secretary.

"I was in the original group," Sid says. "My father remains against it. My mother accepts it. My father feels its a cop-out. His philosophy is that you don't do what you want to, but what you have to do. If he taught me anything, it was to be happy, and I can't seem to convince him that I'm happy."

The stories go on. One girl had ridden with a motorcycle gang. Several had had experience with drugs. "If I hadn't left home, my father would have kicked me out," says one girl.

And all speak of the "philosophy" of The Group. The "philosophy" is difficult to define, differently stated by each. But when the rhetoric is put aside and one word is sought to describe it, the one that seems most fitting is . . .

Christianity

That judgment probably would draw disagreement from some of The Group. "It is perfect love," says one. "Our philosophy is an amalgamation of what is in all philosophies; there is truth in all of them," says another. "It is absolute Christianity," says a third.

When a person joins The Group, his assets become those of the commune. If he has any debts, the commune agrees to pay them. Those who work contribute their entire salaries. When pickings are thin, as they have been recently, all suffer at the same table. "Chicken today and feathers tomorrow," says one after struggling through a lumpy serving of chicken and dumplings.

"It is a matter of total sharing," says Mrs. Donna Stashuk. She is 25 and says she had a "totally pain-free" upbringing in a Catholic, middle-class New Jersey family. "It's very hard to describe living here without sounding like you are living in a fantasy."

Dixon Bowles says the commune should not be considered so much an argument as "an alternative." "It is not something for everyone. But we have been successful in creating a microscopic social structure which answers the needs of many people, especially a lot of young people. We're sufficiently dropout to be acceptable and sufficiently establishment to be constructive."

Most of those in The Group have had their parents visit them. One of those parents is John Alsup of Memphis, the father of Michael Alsup, who was injured in the accident. Mr. Alsup is a troubleshooter for the telephone company and owner of Pop-I's Record Room at 543 South Highland.

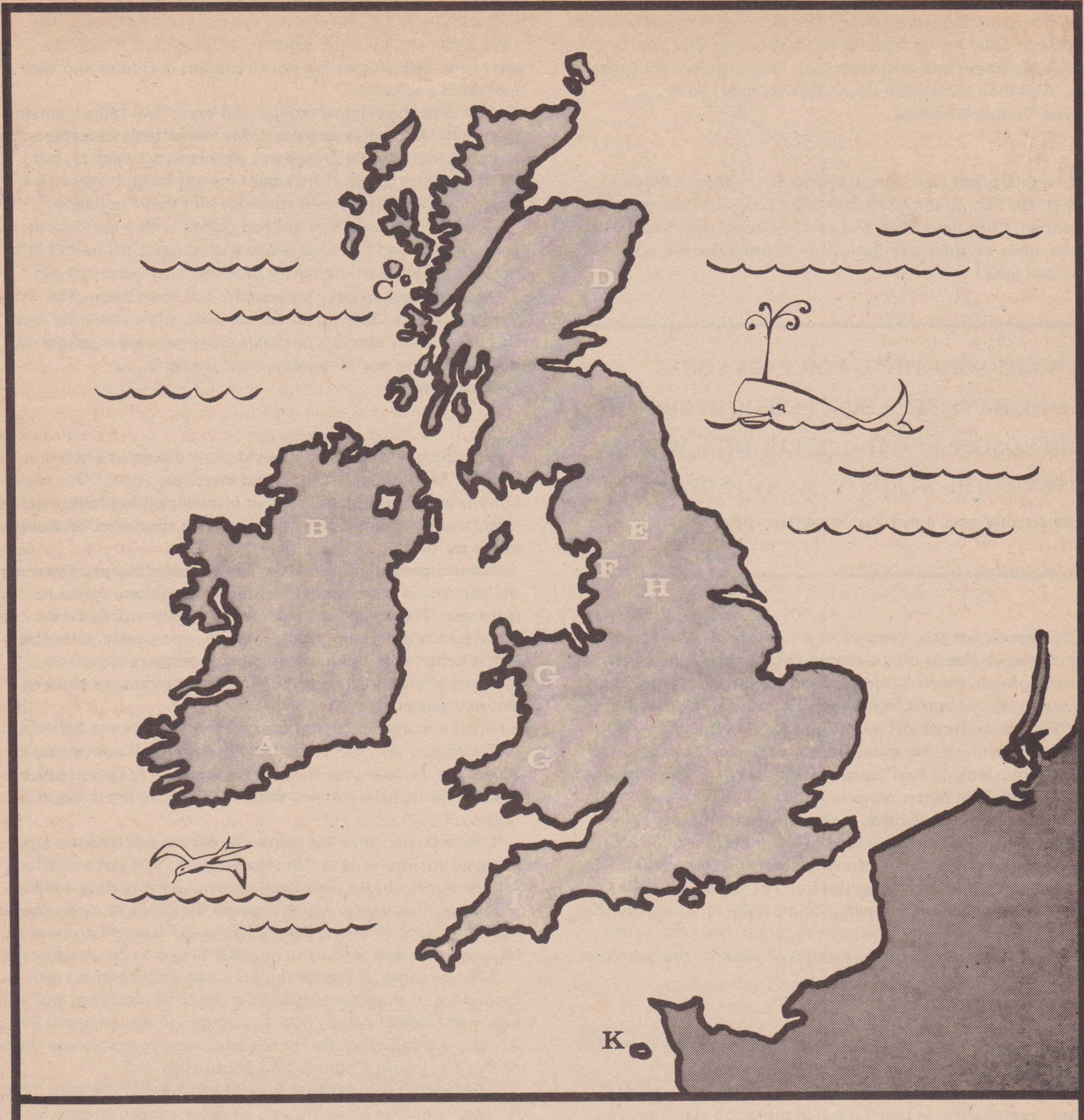
"I wouldn't care for that type of life myself," he says. "But it's been good for Mike. Before, he never seemed to care for anything or anybody. Now he has compassion and feeling for other people. I'm happy he's there."

In the commune, there is even room for doubts. Diane Eudy, for instance, sometimes thinks about what it would be like to have a three-bedroom, bath-and-a-half house in the suburbs.

"But then I think about the land project and about what we are trying to do with The Group, about how we are trying to make something better.

"We want this to last. We've thought about what would happen if something would happen to Dixon. But you have to understand that this is not just his idea. It's something we all want. Someone else could take over and we would go on.

"And now let me ask you something. What do you think of what we're doing here?"



A. The foothills of the Knockmealdown mountains, one of the best inland spots in Ireland to seek inexpensive land and established farms.

B. Lough Erne, strewn with uninhabited islands.

C. The Western Isles of Scotland, another happy hunting ground for island buffs.

D. East coast Scotland south of Aberdeen, a good source of inexpensive mainland properties.

E. A vast area of near-to-nil population.

F. The twin towns of Lancaster and Morecambe. Lancaster is on the road and rail routes to just about everywhere and is particularly useful as a jumping-off point for the Lake District. Inexpensive hotels and apartments are abundant in Morecambe and Heysham, a few minutes south, is the ferry departure point for Ireland.

G. The northern and southern limits of "Mid Wales", an area isolated from the resort development of the north and the industrial development of the south.

H. The region in which most of England's inexpensive hill farms are located. It centers on an area not usually marked on maps known as the Rossendale Valley.

I. The beautiful Devon and Cornwall area, somewhat isolated from the mainstreams of commercial farming.

J. Weymouth, the departure port for Jersey and the other 'Channel Islands'.

K. Jersey, the largest of the Channel Islands and the closest to France.

BACK TO THE LAND IN BRITAIN

ROD CHADWICK

The distant and foreign acreages of Alaska and Canada have received a lot of coverage in the American back-to-the-land journals and even Australia and New Zealand are now being mentioned. But the British Isles have so far been left out of this English-language grouping . . . understandably but mistakenly. For, while Britain has no "free" lands or acreages open to homesteading, the United Kingdom does offer opportunities for the purchase and rental of small and inexpensive farms.

England, Wales, Scotland and Ireland are often represented as terribly overcrowded countries where open stretches of territory no longer remain. In fact, the British Isles have many such uncluttered landscapes.

For example, 2,250,000 acres sown to wheat; 18,000,000 acres in arable production; 12,000,000 head of grazing cattle . . . are figures for where? Canada? The U.S.? Not at all. These are recent figures for England, Wales and Scotland . . . the totals for Ireland not included. To complete the "wide, open spaces" concept, we would have to add in even larger national park and wilderness areas.

In short, Ireland, Scotland and Wales are densely populated in only a very few of their thousands of square miles. Even in England, there are major stretches of low-population country to the southwest of Bristol and north of Manchester.

Hill farms, mainly suited to beef and sheep, situated in Wales and the north of England may presently be purchased outright for between $100 and $150 U.S. per acre. (To make it easy for most readers of this publication, all prices are quoted here in U.S. dollars.)

Mind now, this $100 to $150 price per acre buys substantial buildings and land that is already in production. Farm valuations in these areas rarely take any account of the farmhouse or livestock accomodations. Sales are on purely a "per acre" basis with fixtures "thrown in". Wooden buildings are uncommon and house, haybarn, cowshed, etc. are usually walled with local stone and roofed with blue slate. I'll wager that even "free" homestead land in Canada and the U.S. cannot be cultivated and built on for less.

The typical hill farm–perhaps built in the 1700's and certainly not much beyond 1800–might appear more historic and beautiful than useful and pleasant to live in. Several farms and country houses are, in fact, designated "historic monuments" while being operated by quite ordinary people in quite ordinary ways. The houses, however, have modernized–but still cozy–interiors and the outbuildings are updated and businesslike behind their castle-like doors. There are few derelict farms in Britain. Those for sale are either kept in use until sold or have been only recently vacated.

Hill farm pastures–fenced by ancient, dry stone walls–are sometimes quite steep but each property usually has a few acres of good bottom land that is worked as a hay meadow. In addition, many hill farms are situated on the edge of vast, publicly-owned moorlands and are sold with the rights to free range cattle or sheep on the moor.

Livestock markets, feed suppliers, country schools and friendly shops and pubs are never too far down the road from British farms. The country homes are castle-like in more ways than one, however, and isolation is available in any degree desired. You may pick your estate so that the nearest town or village is completely out of sight . . . or part of a panoramic, almost bird's eye view from the farm house.

The relative unpopularity (and resulting low cost) of the hill farm is based on: (a) the higher productivity of the best land in the valleys and its ready adaptability to modern, intensive farming methods, (b) the so-called "shorter summer, longer winter" climate of the winter-shadowed hill farm and (c) a general dislike of living and working up and down a windy hillside. On the other hand, of course, many people are able to see advantages in the hill farm's characteristics.

By the way, misconceptions about British weather seem to be as widespread as those concerning open space in the United Kingdom and a word is in order:

Summers in the British Isles better those of western Canada where so many back-to-the-land folk are flocking nowadays. Winters better those of all the United States save southern California, Florida and the lower third of Texas. The British climate, in other words, lacks extremes and the United Kingdom is almost ideal for year-round habitation.

Granted that timing a vacation (when you have only two weeks to soak up a year's worth of sun) can be a gamble in the British Isles. Still for comfortable living, working *and* farming . . . the climate is second to none. Remember that 2,250,000 acres of wheat ripen annually in Britain and many more acres of hay are harvested. Both crops are difficult or impossible to produce in much of British Columbia and other areas being considered by back-to-the-land people.

For that matter, you can pick and choose your climate to a certain extent in the British Isles. Consider, for instance, the Island of Jersey. Jersey is part of Britain but closer to France than England. It's a remarkably beautiful spot and the island's long sunny summer and early spring makes Jersey the "California of England" . . . or, as Jersey P.R. men say, "Britain's South Sea Isle".

On the British mainland, the very best summer and winter weather is enjoyed southwest of Bristol in the Devon and Cornwall district. The land is flat-ish and the area somewhat isolated (a Birmingham farmer sits at the center of a web of national highways but roads in Cornwall lead only to Cornwall). Due to this relative isolation, land prices in the region are low and $200 per acre will still buy a farm complete with house and attractive stone outbuildings.

The land bargains in Devon and Cornwall may soon be eaten away by somewhat more inflated "country retreat"

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prices since the area is one of outstanding beauty. As it is, a property of under 50 acres is usually priced with more emphasis placed on the house and buildings . . . but the per-acre cost of a larger farm doesn't really seem to take the structures into account at all. The larger the farm, the better the buy, in other words.

This rule of economics does not seem to prevail in Scotland and Ireland . . . probably because there are few large farms in either country. Instead, both Scotland and Ireland have a strong tradition of very small farms akin to the U.S. concept of the homestead. In Scotland these small land holdings are known as "crofts" and their inhabitants as "crofters". Prices under $150 per acre are common in both countries.

Scotland suffers a more extreme winter than does the rest of the British Isles . . . without the advantage of a sympathetically balanced summer climate. Ireland's emerald greenery, meanwhile, owes as much to a high rainfall as it does to fertile soil. Both countries, however, have charms, lifestyles and—indeed—people which differ greatly from those of England and Wales. These are generally considered to be more than adequate compensation for the less clement weather.

Island and total isolation buffs will find rich pickings in both Scotland and Ireland. The coastline of Scotland is fragmented in many stretches into chains of wild and beautiful islands whose links with "civilization" are tending to diminish, rather than increase. Try getting to Eriskay or Mingulay in a hurry and you'll see what I mean.

There are seals, otters, red deer, golden eagles and rare seabirds here. Time passes slowly. It was only yesterday that the Norsemen left . . . only yesterday that Jacobite Charlie was hunted from cave to cave. Gaelic is still spoken, peat still burnt. Women weave tweed, shepherds walk the hills and poachers still net the lairds' salmon.

To learn more about these islands or to rent a fisherman's boat or farm cottage on one of the isles, write:

The Highlands & Islands Development Board
Via The S.T.B. 2 Rutland Place
Edinburgh, SCOTLAND

Over in the west of northern Ireland, there's a county named Fermanagh . . . and in Fermanagh there aren't many people, so they use up the land by planting forests. There's also a 300-mile square lake in Fermanagh called Lough Erne, on which you can sail for hours and hardly see another boat. The waters are full of salmon and trout that never know a hook from one year to the next and there are about two hundred uninhabited islands in the Lough. Nevertheless, the area is only two hours by road from Belfast (where the ferry from Heysham makes a connection to England). To ask about the Lough Erne Islands, write:

N.I.T.B. Royal Avenue,
Belfast BTI IDQ
Northern, IRELAND

Although the standard of living in the British Isles is close to that enjoyed in the United States and Canada, wages and prices are each about 50% less than those operating in North America. This means that any U.S. and Canadian dollars taken to Britain are at least doubled—and often trebled—in spending power.

Outside London you'll find room and breakfast for $2.00 U.S. per day and $3.00 to $4.00 will buy you a room with all meals . . . less by the week in both cases. Other typical prices include: fish and chips sit-down dinner, 45 cents; movie theater, 40 to 60 cents; natural brew beer, 25 cents per Imperial pint (larger than a U.S. pint); tomatoes, 10 to 15 cents a pound; sprouts, 9 to 12 cents a pound; potatoes, 3 to 6 cents per pound; 25 to 50 cents a pound for fresh caught fish; ground steak, 25 to 35 cents a pound; 45 to 50 cents a pound for mushrooms; milk (fresh, farm bottled and delivered), 12 to 15 cents per Imperial quart. Mind now, these are *normal* prices. Every nation has it's "bargain basement" if you stay long enough to find it.

Certain items do cost more in the United Kingdom, due to an especially high purchase tax. Liquor, cigarettes, vehicle fuels and automobiles are among these exceptions but, fortunately, farm fuels are untaxed and—therefore—very inexpensive indeed. "Commercially applicable" vehicles such as trucks, vans and pickups also escape purchase tax which—in any case—is not applied to second-hand vehicles of any description. For the record: cigarettes start at around 40 cents a pack and go as high as 60 cents for the longest and fattest. Whisky, gin and vodka sell at $5.00 a bottle and around 30 cents a drink over the bar.

Still and all—even in town—two people can live in the British Isles on $25 a week without being miserable shut-ins. Many a working man with a large family manages happily enough on only twice that amount. A farmer may transcend all this, of course, and simply set his production to the income he requires. Markets for produce are close at hand, earnings spend more slowly and—as elsewhere—a vegetable garden, dairy goats, hens, rabbits and other produce can go a long way in making the homesteader self sufficient and largely independent of the need for a cash income.

For those who do want a moderate income from the land in Britain, without getting into all-out farming, a simple cattle rearing program based on grazing and winter hay maintenance feeding might be the best bet. Spring-purchased, 4-month-old dairy calves can be bought for $60-$80 and are readily saleable for $120-$175 as "bulling heifers" the following spring. A similar market (at prices 10 to 20% higher) exists for beef-type bullocks or steers. Such feeder operations require little more skill than attention to summer fencing and winter stall cleaning and bedding. All the hay-making machinery may be hired (with operators) for a total final cost of 10 cents per 60-pound bale. Excess hay may be sold at 60 cents per bale during an average summer and that price often doubles towards the end of a long winter.

Using a stocking rate of one head of young stock per acre for an average hill farm, it is possible to roughly calculate the necessary investment you must make for a particular future income. Using U.S. prices to cost other needs will guarantee a wide—and advisable—safety margin.

For an idea of what Britain's press has to say about the farming scene there, try:

FARMER'S WEEKLY, Agricultural Press Ltd., 161 Fleet Street, London EC4, England. This magazine is full of farms, livestock and sundry equipment for sale. It also contains features and news stories that describe one innovative technique or another that an individual (or, perhaps, eccentric) is using which otherwise might never be heard of outside his own area. The publication also runs a free information service in its 100 MOTHER-size weekly pages. The price in Britain is 24 cents and a dollar should bring a single copy airmail or several (6 to 8) by sea.

FARMER'S GUARDIAN, 127 Fishergate, Preston, Lancashire, England has a similar format but is a weekly tabloid newspaper of 20-25 pages published in the north of England. It's price is a fantastic bargain at only 9 cents a copy in England. Again, one dollar should bring a sample or two by air or at least a five week subscription by surface.

It's also possible to subscribe to, receive samples of or get a description of all farming and gardening periodicals published in England (or throughout the world, for that matter) from:

Blackwell's
Broad Street
Oxford, ENGLAND

Blackwell's will also supply their catalog (894) of British farming books which are much less expensive direct than from U.S. sources. *Organic Farming*, by H. Corley—to cite one example—is listed at only $2.16.

Going back to the land in Britain offers many fringe benefits, some of which should be at least briefly mentioned here. First and foremost, of course, is the lifestyle . . . at once both more relaxed and civilized than the degrading "rat race" now so prevalent in North America.

The cities and towns of Britain were, for the most part, established long before the age of urban sprawl and highway strip building. As a result, the populations of cities which take up whole counties in the United States are snugly accomodated by much smaller areas in the United Kingdom and, today, outward "development" of cities is limited by strict land-use laws.

(continued on next page)

LAND AGENCIES IN BRITAIN

The following are a few British agencies that frequently deal in inexpensive farms and smallholdings.

Remember that a reputation of American wealth precedes you. Ask for a current or continuing listing of "farms and smallholdings and other rural properties within your area which are priced at or likely to sell at auction for less than 100 Pounds Sterling per acre and/or not exceeding ______ Pounds Sterling total price".

To figure the total price to put in that blank, you have only to remember that $240 exactly equals 100 Pounds Sterling. If approximately $5,000 U.S. is your very top limit, then, put 2000 Pounds ($4800) in the gap.

NORTH OF ENGLAND (Hill Farms)

E. Robinshaw Estate Agents
Oulder Hill
Rochdale
Lancashire
England

T. Armistead
66 Church St.
Lancaster
Lancashire
England

Smith & Hodgkinson
53 St. Thomas's Rd.
Chorley
Lancashire
England

Jackson & Reeday
Cragg Farm
Foulridge
Colne
Lancashire, England

Richard Turner
2 New Market St.
Clitheroe
Lancashire
England

W.H. Rodwell
38 Longsight Rd.
Holcombe Brook, Bury
Lancashire
England

S.W. ENGLAND (Devon, Cornwall etc.)

W.H. Lane & Son
67 Morrab Road
Penzance
Cornwall
England

J. Kittow & Son
Estate Agents
Launceston
Cornwall
England

Price, Ogden & Stubbs
79 Boutport St.
Barnstaple
North Devon
England

WALES

Evans Bros.
39 High St.
Lampeter
Cardiganshire
United Kingdom

John Francis
Auctioneers
Carmarthen 6465
Wales
United Kingdom

Peckover & Burrill
47 Vale Street
Denbigh
Wales
United Kingdom

NATIONWIDE (including Ireland)

Woodcock's (Estates)
30 St. George St.
London W. 1.
England

SCOTLAND

Aberdeen & Northern Marts
Estate Agency Department
7 Albyne Terrace
Aberdeen AB1 1YP
Scotland

SMALL HOTELS IN BRITAIN

Write to the following addresses for listings of reasonably priced small hotels (boarding houses), guides to the areas mentioned and answers to individual questions about each district. The offer (if not actual enclosure) of some payment—especially when requesting air mail—is a good idea.

ALL ENGLAND TOURIST GUIDE
(a free 50 page book)
and other specific enquiries:

English Tourist Board
P.O. Box 30
London N. 8.
ENGLAND

DEVON AND CORNWALL

South West Travel Assoc.
229 High Street
Exeter, Devon,
ENGLAND

Publicity Officer
Room 902 County Hall
Truro, Cornwall,
ENGLAND

JERSEY

States of Jersey Tourism
Weighbridge
Jersey C.I.
United Kingdom

NORTH OF ENGLAND

Information Office *
Town Hall
Promenade
Morecambe, Lancashire,
ENGLAND

SCOTLAND

Scottish Tourist Board
2 Rutland Place
Edinburgh
Scotland

IRELAND

Irish Tourist Board
P.O. Box 273
63 Upper Stephen St.,
Dublin 8, Ireland

WALES

Wales Information Board
High Street, Llanoaff,
Cardiff, Wales, U.K.

Gilfach Yr Halen
Farm Estate
Llwyncelyn
Near Aberayron
Cardiganshire
Wales. U.K.

** I mention Morecambe mainly as a good source of cheap and cozy boarding houses and small hotels, and for it's location. The information office is not related to the north of England as a whole. Morecambe is a sea resort between Lancaster and Heysham. Ask for their accomodation listing and info on travel into surrounding rural Lancashire.*

(continued from preceding page)

Both radio and television are much more pleasant to an adult in Great Britain and tuning in is an alternative life style by itself. I wish everyone who is even remotely interested in Britain would read a copy of the BBC's weekly guide, *Radio Times.* It's available by air for $1.00 from:

BBC Publications
35 Marylebone High Street
London, ENGLAND

BBC radio has four channels: (1) Pop and jazz; (2) Light music, plays, magazines, live comedy, variety; (3) Up, up and away highbrow; (4) News, documentaries, plays, education courses, light to heavyweight music.

The standard of British television journalism ensures that *Meet The Press* and the *Cronkite News* would be booed off the air if shown across the water. In fact, in 1969 two American-made "adult" drama series were dropped by BBC TV after only a few showings due to the volume of critical mail from 8 to 11-year-old children! Most of the 75% of British TV fare which is not imported or awful movies is simply of a quality which cannot successfully be communicated to residents of the U.S. Suffice it to say that British television—with two commercial-free BBC channels and one commercial channel—has embraced ALL the freedoms of the new theater, underground film, the impish and ravaging debates of Parliament and British journalism.

The British airwaves were made even more attractive just before the last national elections when the Socialist Labor Party inaugurated a "University of the Air", now broadcast over both TV and radio. Anyone, including tourists and visitors, can enroll and—apart from a two-week "summing up" session at an actual university—whole courses in a full range of subjects can be taken via a radio and a television set. The program is not quite free (although the lectures are, of course). There's a nominal enrollment fee to cover correspondence course mailings and a few books and "Open U" publications to buy . . . but you certainly receive a great deal for that small investment. For further details (enclose a dollar if you expect a weighty reply), write:

National Extension College
8 Shaftesbury Road
Cambridge, ENGLAND

In the field of "ordinary" education and child care, the British government provides pre-school schools for the children of working mothers; milk, vitamins, juice, etc. for pre-school children; and free education all the way up.

A back-to-the-lander will enjoy still other "extras" of the Good Life in Britain. Consider medical care: to an Englishman, medical treatment of all kinds is a constitutional right. The idea that it be withheld from—or not sought by—those unable to afford it seems criminally wrong. Throughout the British Isles, all the following benefits and services are free of charge, regardless of income (many are also available, as a courtesy, to foreign visitors): treatment or visits from a physician; prescribed medications; hospitalization with any and all treatment given; all aspects of maternity care, including at-home and hospital births; prenatal and antenatal clinics.

Perhaps I should stress that it is never compulsory (as many Americans presume) for a citizen to accept whatever the state provides in the British Isles. The alternative of purchasing the service or substituting another on your own is always there.

And still more possibilities for Good Living in the United Kingdom: farm houses (redundant after farm amalgamations) for rent at $11 per week; town houses WITHOUT land, selling outright at $1500 (no "O's" left off there!); live-in-and-help-crew motor yacht cruises on the Thames and English Channel at $30 weekly and less, all inclusive.

There are many more such gains and very few regretable losses to take into account. In short, I think a North American looking for an easier pace and simpler living will find Britain similar enough to "home" to minimize losses in transit but different enough to overcompensate in gains. No one—least of all the British—calls the United Kingdom of England, Scotland, Wales and Northern Ireland perfect. But perhaps, like democracy, the U.K. is "the least bad" of a kind.

Entry into Britain is granted on a temporary (tourist) basis quite simply at the port of entry. Length of stay stamped into your passport is based on: (a) your own requirements and (b) the money you say you have available to you while in the country. When funds are low and you want to stay long, you should explain that (1) you will have no hotel bills because you will be staying with friends or relatives [have an address handy] or (2) your family will be sending you money on a regular basis.

Later applications to remain *and become employed* are not so readily approved. A visitor may renew a temporary visa almost indefinitely, however, and summer employment in England is OK with the immigration officers. And, of course, a self-supporting landowner may change from tourist renewal to permanent resident status with relative ease.

Conditions on the Island of Jersey are even better. There, employment in hotels and in agriculture may be obtained without the documents and other red tape required in the rest of the British Isles. In fact, there are no passport formalities of any kind at the end of the $10 ferry ride from Weymouth on the south coast of England.

Maybe Jersey—with its sunny clime, remarkable beauty, great number of gentle cattle which bear its name and all-around lack of formalities—is the best introduction of all for any North American interested in going back to the land in Britain. In my mind, however, the whole U.K. offers almost ideal opportunities for "modern homesteading". Come on over and see for yourself.

TRANSPORTATION TO BRITAIN

Getting to Great Britain is not the expensive proposition you may have thought. A round-trip air ticket to London can be purchased for only $150 and internal travel is quite reasonable, even without using the "runabout" bus and rail tickets available to tourists at token fees. And, of course, the faithful thumb remains a legal and successful way of getting about in the U.K.

The following agencies sell charter flights ($150 round-trip from the eastern United States). Other agents may be found in the advertising columns of the LONDON SUNDAY TIMES, sold at least on one newstand in every major North American city.

Pan Europa Tours *
25 Bloomsbury Way
LONDON W.C. 1

The Trans American Society
36 Dumbarton Road
London S.W. 2

Charter Flights Unlimited **
1490 West Broadway
Vancouver 9
British Columbia

The single disadvantage of these "club flights" is the necessity of having one's name listed for five or six months before departure. Once your name is down, however, it's possible to book a seat on a particular flight without further wait.

The ships of the HEAD & LORD LINE, 26 Beaver St., New York, New York, regularly sail for Ireland and Scotland from the east coast of Canada and the United States. The trip across takes nine days so the $150 fare—including as it does, better than a week of first class British hotel service—is reasonable indeed.

Sea travel has the additional advantage of allowing large amounts of baggage at no charge. Head and Lord will even ferry a car across the Atlantic for you and, since British auto makers offer their products at very reduced prices to foreign visitors, you can always bring a bargain automobile back to these shores if you decide not to homestead in the U.K. Get full details on car purchase from:

British Travel Association
612 South Flower
Los Angeles, California

If you fly into London (as many of today's tourists do), you'll find fast, direct train service to: (a) Manchester, which is 15 miles south of the best area for inexpensive English hill farms. (b) Lancaster, which is 15 miles north of the same area and only minutes from Heysham and its daily $5.00 ferry to Ireland. Lancaster is also on the main road and rail route to Scotland and is the departure point for the nearby "lake district" and a massive farming region south of Scotland's border. (c) Liverpool, about halfway between the hill farms of both northern England and Wales.

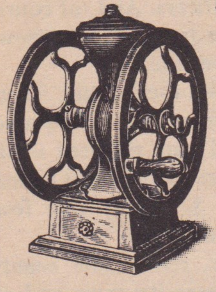
And while we're on the subject of transportation: the most beautiful vacation in the world would *have* to be roaming free the country lanes of Ireland at the reins of a horse-drawn Gypsy caravan (wagon). The van sleeps four and the hire—which includes oats for the horse and a list of farmers who provide overnight parking and grazing—is only $50. Non-believers should write:

The Irish Tourist Board
150 New Bond Street
London W. 1., ENGLAND

**Pan Europa also offers inexpensive sea crossings.*
***Charter Flights makes west coast departures.*

HOW TO BE AN ANTIQUE PICKER

Coffee Spice and Drug Mills.



57257 This mill is suitable for hotels, boarding schools or large institutions; height, 13½ inches; weight, 13½ pounds; diameter of fly wheel, 9¾ inches; will grind about ½ pound of coffee per minute; is nicely painted and ornamented, and can be instantly adjusted to grind coarse or fine. Price............$2.40

Illustrations from the 1895 MONTGOMERY WARD CATALOG as reprinted by Dover Publications.

IRA SMITH

OK . . . so you've finally made the break. You worked and saved and sold everything you didn't need and borrowed and finally got enough together to buy that farm you'd been dreaming about. You've gotten through the first winter, the crops are planted, the cow's giving milk regularly and everything's fine. It looks like you're going to make it . . . And then the old John Deere breaks down and the barn roof starts to leak and your lady wants that new loom more than anything and the one thing you don't have is plain ol' hard cash money. The farm is nowhere near being a financial success and, besides, you aren't doing it for the money anyway and you can't get a job *and* run the farm and, besides that, you need the money now, not next month and just how are you going to take care of those unexpected expenses?

Fear not! There is, indeed, a way that works for many others and that just might work for you.

BE A PICKER

Picking is the art of buying antiques from auctions and sales and people and selling them at a profit to antique shops. People who do this are known as pickers.

Antique shops have to get their merchandise somewhere, and while some dealers make the rounds of auctions and sales, there are many others who can't because they don't have the time or they're little old ladies or they don't have a truck or whatever. Even those dealers who do go to auctions and sales can't go to them all. If you're clever, you can even buy at an auction a dealer attends and turn around and sell him the very thing he bid on earlier. More about that later.

To get started on the road to fame and fortune as a picker, all you need is a little capital. And it can really be a little. You can start with five dollars . . . maybe even less if You're really clever. While it helps to have a truck or a station wagon, it isn't absolutely essential.

If all you have is an old VW or a bike or feet, then you can limit yourself to dealing in small antiques—jewelry, lamps, glass, china, silver, old bottles, stuff like that. In fact, it helps to have a specialty. If you get to know a particular field extremely well, not only will you probably do better at buying, but shop owners will come to respect and trust you for your expertise in that area.

Incidentally, in that last sentence, there was a very important word. Trust. The people you deal with *must* be able to trust you. Don't rip anybody off ever for any reason. The antique business is an easy business to be dishonest in. There are plenty of temptingly gullible folks and plenty of downright despicable people who maybe deserve being ripped off . . . but don't do it anyway. There are already enough rip-offs in the antique business. Of course, there's no harm in learning to be an uncommonly clever horse trader. That's part of the game.

It's not necessary to be an antiques expert to be a successful picker, but a little basic knowledge is essential and, at the end of this article is a list of books which will help. Most of them cost more than they're worth, but the local library is bound to have some of them. Study the books carefully until you know one style and one period from another. Shouldn't take more than an evening or two.

The next step is to go around to all the antique shops you can find within whatever radius you feel you can cover. Those in larger towns and cities generally will pay more for antiques than small town shops. But not always. That's one of the reasons you have to go look for yourself.

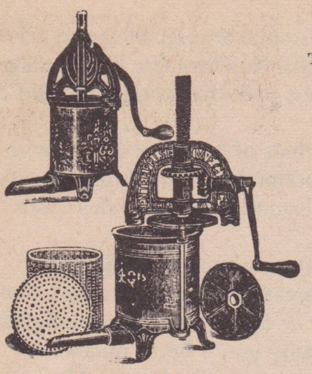
When you go into a shop, take your time and survey the stock carefully. Tell the man (or lady) that you're just looking (the pitch comes later). See if they seem to specialize in any particular items. Be careful, though . . . a lot of something might mean that the dealer bought unwisely and got stuck with unsalable merchandise. You'll find that out later.

Look over the shop's prices, and try to memorize them in general terms. (A note of caution at this point: If there are no prices marked on anything, it means one of two things. Either it's the sort of shop that's so expensive and the clientele so well off that nobody mentions price before deciding—which is a good thing for you, because it generally means that they pay proportionally well for things—or it's a shop that sizes up the customer and decides how much he can pay before telling him the price.)

If the shop falls into the latter category, it's probably a good idea to steer clear of it on general principles. A man who does business that way is obviously a much better horse trader than you at this point, and will do everything he can to convince you that whatever you try to sell him isn't worth what you paid for it . . . but because he likes you and hates to see a newcomer get burned, he'll take it off your hands for just what it cost you.

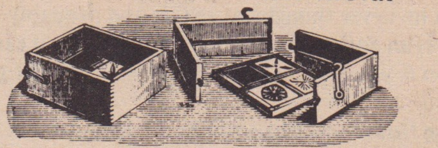
Anyway, look over the prices, bearing in mind that the shop owner will generally pay about 50%-70% of his selling price to buy an article. You're going to have to be able to buy

Sausage Stuffer, Fruit and Lard Press Combined.



The Enterprise Combined Sausage Stuffer, Fruit and Lard Press; unexcelled for butchers' and farmers' use for stuffing sausages, and will be found useful for many purposes in every family, Directions will be found in catalogue that comes with each press.

The Blanchard Butter Mold.



56978 These celebrated molds are made of selected white birch, and only brass hooks and screws are used throughout, so that there is no possibility of rust and consequent discoloration of the wood. The bottom is prevented from warping by strong wooden cleats, while the sides are grooved sufficiently deep to allow for swelling when in use, and are "lock-cornered" together, thus securing the utmost possible rigidity. One great advantage of these molds over most other patterns on the market, is that the prints are released by a single motion, and in perfect shape, instead of being pushed forcibly through a form by a plunger, which injures the grain.

it at about half of that smaller figure in order to make a decent profit. Don't worry though, it's pretty easy to do. I did it. 500% markups aren't uncommon in the antique business.

Along about this time, you can wander over to the owner or proprietor and engage him in some friendly and pleasant conversation. Talk around to finding out what he has the most demand for, what sort of things he has a hard time getting and—most important—what sort of things there's no market for at all. (Another digression at this point: the market for antiques fluctuates with all the certainty of hemlines and prices are in direct proportion to popularity. Scarcity also has a lot to do with price, but not consistantly so. If *Woman's Day* comes out with an article on a particular thing, the price is sure to go up within a month.)

Prices also drop, but for reasons I can never understand. I remember once the bottom fell out of the market for pressed glass tumblers. Tumblers that had been selling for 7-10 dollars could be bought for a dollar or so. I bought up all I could find and cleaned up a year later when the market rose again.

Once you've been dealing awhile and know what you're doing and have a little spare capital, you can buy up things that are down in price—or if you're really confident and daring, things which have never been popular but which you feel will be soon—and hold on to them until the market rises. There's not as much risk in this as it might seem, for antiques never get any less scarce, and prices are bound to rise sooner or later. The only problem is how later? At this point in your career, though, it's probably best not to mess with long-term investments.

Now, back to the shop where you've been chatting with the shopkeeper. At some point in the conversation, tell him you're a dealer (it sounds better than picker), and that you just might be able to supply him with some of the things he needs. Telling him that you're a dealer will also enable you to buy things from him at greatly reduced prices*. It is, incidentally, possible to buy an item from one of your shops and sell it at a profit to another. We'll get into that a little later on.

If the shopkeeper seems interested, find out more specifically what he wants to buy and tactfully ask him the sort of prices he's willing to pay. Once you've learned what you need to know, have some excuse to be on your way because antique dealers can be notoriously long-winded on fairly trivial matters and—unless you've got nothing better to do—you can waste an amazing amount of time being a polite audience. As soon as you leave, write down all you've learned in your handy pocket notebook or else it's going to get mighty confusing along about the fifth shop.

Now we'll get down to the business of where to buy antiques and how. Most of your purchases will be from four sources: auctions, private sales, individuals and other antique shops. Since the matter of buying from one dealer and selling to another has already been mentioned, we'll start there.

Generally speaking, three factors govern the way an antique dealer prices his merchandise: how much he paid for it; how much he knows about it; and whether or not he likes it. Which means that there is certainly no serious standard of antique pricing. As you get to know the various antique shops in your area (and their proprietors), you'll learn where their heads are in terms of pricing. Since there is usually surprisingly little communication between antique shops, and since nobody can keep track of all the merchandise that a competing dealer has, you'll occasionally discover that Ye Olde Mill Antique Shoppe has an item that you can buy for five dollars and for

(continued on next page)

**This digression comes in the form of a footnote because if it came in the middle of the article, you'd probably forget what I was writing about by the time you got to the end of it.*

Here's an invaluable tip for anyone interested in (A) antiques (B) saving money (C) getting a bit of a break on income taxes . . . which should cover just about everybody. Run right out and get yourself a sales tax license and whatever other licensing might be necessary to operate an antique shop. (Doesn't cost much . . . when I was dealing back home, all you needed was a sales tax license which cost two dollars and was good forever).

Now, when you go into an antique shop, tell them you're a dealer and that you have a shop of your own . . . and you'll find yourself getting from 20% to 60% off on whatever you buy. Also, since you're now officially an antique dealer operating a business out of your home, you can legally deduct a percentage (whatever percent of your home is given over to business purposes . . . I always figure 50%) of your rent or mortgage payment, automobile expenses (including purchase price if you buy one after you get your business papers), utilities, telephone, etc. as business expenses. And if your expenses are more than your income (which somehow almost always happens) you can write off a big chunk as a business loss. Bigger businesses than us do this, so it must be OK. Or so my income tax man always told me . . .

(continued from preceding page)

which Grandmother's Attic & Emporium will gladly pay ten dollars. You buy (or trade) it from the first one and sell it to the second. Simple as that.

Sooner or later, you're bound to come across someone who has an antique that he wants to sell. Or someone who has something that he never thought of selling and probably doesn't realize is an antique but which you know you can turn a little profit on if you can get him to part with at the right price.

Now, buying from individuals can be a tricky matter. The first thing to remember is to be honest and fair in your dealings. Don't try to rip anybody off. I realize that I shouldn't belabor this point because all of MOTHER's readers are fine, upstanding, honest and gentle folk . . . but just in case there's a predator out there, some mention of honesty should be made. Chances are that the individual you'll be buying from is one of your neighbors, and if you con him (or her) out of a family heirloom, you'll have to answer for it sooner or later. So keep it straight as you go.

The primary difficulty in buying from an individual is in agreeing on a fair price. Whenever you can, don't make the first offer. Ask the seller how much he wants for whatever he's selling. That way, if someone comes along after you've bought the object and tells the seller that the price was not nearly enough, he can't blame you for not offering a fair price. It was *his* price.

Of course, if someone offers you a rare art glass vase for two dollars, and you know that you can get two hundred for it, you'd dang well better offer the individual more for the vase. And not just five dollars, either. Let him share in the good fortune. You'll sleep a lot better for it.

That sort of thing won't happen very often, though. More often than not, people overestimate the value of a family heirloom. If the price they ask is too high, decide what you should pay for the item in question and make them an offer. If they refuse, a little haggling is OK but don't tell them how little the thing is worth . . . you'll only make them unhappy. Just tell them you're sorry, but that your price is all you can afford to pay, and let it go at that.

A technique that sometimes works well in buying from an individual, particularly when the item you want is something that is still in daily use (or disuse) and which has no sentimental value, is the "new lamps for old" method. For instance, if the item you want is a rare Model FF Leica that somebody brought back from the war (the big one, in '44) and that nobody knows how to use . . . the owner just might swap the Leica for a new Instamatic which would be of more use to him. And all parties involved will feel they got the best of the trade.

Of course, the foregoing example is highly unlikely, and was used purely for illustrative purposes. A more reasonable example might be to exchange a new stainless steel mixing bowl for a piece of early Bennington ware. Anyway, I'm sure you get the idea.

Private sales usually aren't worth bothering with, but they deserve a little mention before going on to your major source, auctions. When someone wants to sell all or most of a houseful of stuff and is afraid to have an auction, they'll often hold a private sale. Professional sale managers usually come in, price things and run these private sales for a percentage of the take. With people like that, your chances of finding a bargain are practically nonexistant. Still, there *is* a chance. If you can get to a private sale early, and have nothing else to do, it's worth a try.

Occasionally, someone will try to do a private sale without the help of professional managers, and if you find one of these your chances of picking up something you can sell at a profit are pretty good. Again, get there as soon as the sale is scheduled to start, because you're not the only one trying to buy bargains.

Auctions will be your best source of resalable antiques. They're also the most dangerous. Nowhere else is it as easy to spend good money on worthless junk that you don't want or need. Believe me, I know.

Essentially, there are two kinds of auctions: (1) farm or household auctions and (2) auction house auctions. Forget the second kind. They always sound good, but I never can get a good buy at one.

To find out where and when auctions are being held, check the local papers in the areas you intend to cover. Most auctions are held on Saturday or Sunday and are usually advertised on Wednesday. Occasionally you'll find a mid-week auction, and these have the most potential for good buys because the crowds are smaller (lots of people work during the day, remember?)

Deciding on which auction to attend will probably be a matter of chance at first. Try to attend auctions held by all the auctioneers in your area. Once you get to know the auctioneers, you'll know which auctions are most likely to be worthwhile.

By trial and error (mostly error) I've formulated a set of successful auction buying rules and techniques which I will herewith set down, absolutely free for nothing without cost or obligation and out of the pure noble goodness of my generous heart.

Make it a point to get to the auction at least a half-hour before the auction is scheduled to start. This gives you a chance to carefully look over all items before the sale begins. Make note of the things in which you're interested and decide the top price you'll pay for each item. Since this is probably the most important rule of successful auction buying I will say it again.

Decide beforehand what you will pay for an item and stick to it. It can be disasterously easy to get caught up in the excitement of bidding and pay far more than an item is worth. I once watched two ladies—both antique dealers—run a dimestore ceramic rabbit up to eleven dollars. Even though the audience had begun laughing, they kept right on bidding. So watch out!

Never make the mistake of buying something you don't really need or want just because it's cheap. Of course, if the item is really outrageously inexpensive, you can probably sell it to someone at a profit. But be careful. I remember the time I bought a monstrous old chicken brooder for 10 cents. The brooder was certainly cheap enough . . . but at the time I lived in town, didn't keep chickens, didn't intend to keep chickens, didn't know anybody who did keep chickens and didn't even particularly like chicken.

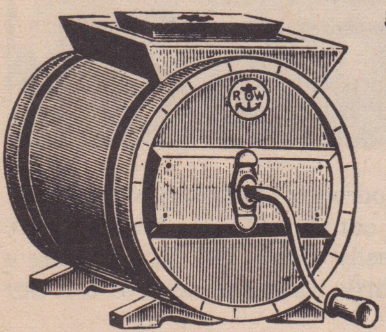
Then there was the five piece set of horsehair parlor furniture for a dollar which I later found was home to a good many mice. Or the horse-drawn farm wagon which I bought for a mere three dollars and which I had to tow home behind my car at five miles an hour. For 30 miles. Not to mention the 50 cent sheep . . . but that's another story.

It's not necessary to be secretive about bidding. Everybody's got this dumb idea that you have to be anonymous and sneaky when you're bidding. Horse puckies! I've found that the best spot at an auction is right up front, as close to the auctioneer as possible. That way you can see exactly what it is that's being sold.

It's amazing how many people bid on things (or miss bidding on things) that they can't see. I've been at auctions which were overrun with dealers, all of whom missed at least one good buy because they couldn't see in detail what they were bidding on. When this happens, you can frequently sell your purchase at a profit before you even leave the sale.

More on being up front: Stay as close to the auctioneer as possible. Farm auctions are frequently conducted from the front porch of the house. Get right up there by or on the porch steps. This has a number of advantages in addition to visibility. By being close to the auctioneer, you have a good chance of making friends with him after a few sales (laugh at his jokes, be a good ol' boy). Once the auctioneer gets to know you, he'll sometimes quickly knock down an article to you that he knows you want badly. But never ask him to. You'll blow it forever. If he does it homself, OK. Otherwise forget it.

Improved Cedar Cylinder Churn.



56869 This we consider by far the best small, cheap churn on the market It is made from the best Virginia cedar; it has a double dasher, and the crank is locked to the churn with a clamp and thumbscrew, which prevents leakage. Lock cannot break. The top is large and dasher easily removed. The hoops are of galvanized iron and will not rust.

Being up front also gives you the advantage of being able to face the audience. You can see just who is bidding against you . . . and they can see you . . . and all this can be used to your advantage.

For instance, if you're big and ugly, you can try glaring at others to intimidate them out of bidding. Or if you're sort of freaky looking, you can play the role of the local fool and get some sneaky bidding in while nobody is taking you seriously. Or if you sense that people are bidding against you out of spite because you're weird, you can make virtually imperceptible bids that only the auctioneer can see. Auctions are really a game, you see, and if you don't take them too seriously, they can be grand entertainment. Half the fun, (and success) in fact, lies in learning to play the game well.

Here are a few final handy pieces of information about auction buying. If bidding seems to be generally too high for what the merchandise is worth, don't waste time waiting around for a good buy. Sometimes auctions run this way. Go find another auction.

If you have a choice between two auctions, one of which offers a good many antiques and the other listing only a few, choose the latter. Most of the dealers and collectors will be at the first one.

Picture frames are always desirable items at an auction. However, nobody seems to care much about what's in the frame. Let somebody else buy the frame and you can frequently talk them out of whatever's in it for little or nothing (assuming that *you* want whatever's in the frame).

At farm auctions, there are always things which come up that won't even bring the minimum bid (usually 25 cents). When this happens, the auctioneer will put it aside and go on, adding no-bid items to the pile as he goes. Every once in awhile, he'll bring the whole stock up for bid. It doesn't often bring much, if anything, because nobody wants to cart all that junk home. But if you're close to the auctioneer, you may see repairable things or something vaguely useful in these piles. Besides, if you buy the junk, you'll be a little further on the way into the good graces of the auctioneer.

A usual side benefit of farm auctions is the food that's generally provided by the local Ladies' Church Society. The pies are fantastic and there's nothing quite like the feeling of sitting there in the shade eating a big piece of home made cherry pie, listening to that old auctioneer and thinking about all the antique picking you're going to do.

Once you've gone out and bought a few things, your next step is to sell them to one or more of your shops. If time is no problem, you might even consider refinishing a few of the items. It's not hard to learn *(MOTHER NO. 6, LIVING THE GOOD LIFE)*, and a good refinishing job can greatly increase the value and salability of an antique. Many shopkeepers haven't the time nor the desire to do their own repair and refinishing. And many of those who do restoration work don't do it very well. And thereby hangs a brief digression:

If you really want to get into the antiques thing, it would well warrant the time spent learning to do really fine, old-timey craftsman-type repair and refinishing. I'm not saying that it's necessary for you to refinish everything in order to be able to sell it. In fact, knowing when *not* to refinish can be one of the most important things of all. But if a few hours work can mean that you get fifty dollars for that chest instead of five, it's at least worth your consideration. If you decide to do it though, do it well. I've seen an unpleasant number of first-rate antiques messed up with third-rate work.

If you don't refinish, at least clean your antiques well before setting out to peddle them. Just taking off the years of dirt can make quite a difference in the appearance and, consequently, in the salability of antiques.

The last step on your road to untold riches is to sell at a profit those things which you buy. If you've learned your shops well, you should have no trouble.

Never try to rush a sale. Chat with the shopkeeper a bit, then tell him that you picked up a few things the other day that might interest him. The sale will usually take care of itself from there on . . . if you've learned your shops well.

Frequently the dealer will tell you that your price is high, that the merchandise isn't worth much, that such and such isn't a very good piece or isn't in good shape. Don't be put off by this sort of thing. A little haggling is in order, and by turning it into a game of wits (like auctions), it can become an enjoyable part of the procedure.

What do you do if you can't sell something? Take it home and use it. You can try to sell it again in a few weeks or months. The market changes often, and sooner or later there'll be a buyer for whatever you have. In the meantime, enjoy it. This is one of the fringe benefits of being a picker. You can furnish your place with antiques and by selling whatever there is a current market for, your decor never becomes monotonous. How many other people can afford to re-decorate with fine antiques every few months?

On selling antiques to friends: if you can't resist the universal temptation to sell things to your friends at cost, sooner or later everyone is going to be your friend. Matter of fact, you'll slowly starve to death *surrounded* by friends. Remember that you've invested your time, skill, capital and transportation in these antiques. It's essential that you recoup your investment in order to survive. If you explain it to your friends that way your *real* friends will understand. Besides, if you give them a

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dealer's price, they'll still be buying from you for far less than they'd pay in a shop.

Happy pickin'.

HERE'S THAT LIST OF USEFUL BOOKS ON ANTIQUES:

AMERICAN COUNTRY FURNITURE 1780-1875
Ralph and Terry Kovel
Crown Publishing

THE ANTIQUES BOOK
Alice Winchester
Bonanza Books

FIELD GUIDE TO EARLY AMERICAN FURNITURE*
Thomas H. Ormsbee
Bonanza Books

FIELD GUIDE TO AMERICAN VICTORIAN FURNITURE*
Thomas H. Ormsbee
Bonanza Books

THE CARE AND REPAIR OF ANTIQUES
Thomas H. Ormsbee
Grammercy Publishing

THE EASY EXPERT IN COLLECTING AND RESTORING AMERICAN ANTIQUES
Moreton Marsh
J. B. Lippincott and Co.

AMERICAN HERITAGE HISTORY OF AMERICAN ANTIQUES
American Heritage

PRICE GUIDE TO PATTERN GLASS
EARLY AMERICAN PRESSED GLASS
EARLY AMERICAN PRESSED GLASS HANDBOOK
SANDWICH GLASS
SANDWICH GLASS HANDBOOK
VICTORIAN GLASS
VICTORIAN GLASS HANDBOOK
19th CENTURY ART GLASS
ANTIQUE FAKES AND REPRODUCTIONS
All by Ruth Webb Lee (THE authority on American Glass)
M. Barrows and Co.

FURNITURE TREASURY (3 vols.)
Wallace Nutting
MacMillan Publishing
(5,000 photographs of every imaginable style of antique furniture)

OLD CLOCKS AND WATCHES AND THEIR MAKERS
Frederick James Britten

**FOOTNOTE TO BOOK LIST: These field guides as well as some of Ruth Webb Lee's books have price lists in them. Disregard the prices. Since these books were published in the early 60's, the prices have gone up considerably. Besides, the prices in those books were never very valid to begin with. You just can't place a fixed price on antiques.*

The book list is far from complete. It'll do to get you started, though. Once you get to the library, you'll discover all the other great books that I've forgotten to mention.

THE GAS-BURNING WOOD-BURNING STOVE

STUART SILVERSTEIN

Living with a wood-burning cook stove is one of the greatest joys of country life . . . but there are times when you really don't feel like starting a blaze just to boil a little water for a cup of tea. But there is a solution.

Many cook stoves have water reservoirs which have either rusted out or are simply not being used. If your stove is similar to mine, the reservoir can be lifted out and a two-burner gas plate easily fitted into the opening. One caution however: After lifting out the reservoir be sure to block off any spaces down in the hole (sheet metal works fine) so your chimney will still draw properly.

We got a used gas plate for $10.00 plus the cost of a tank of propane. Aesthetically, the gas plate looks fine because it too is black cast iron . . . and, for convenience you can't beat it.

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- MORE RECYCLING
- MORE ECOLOGY FEATURES
- MORE LOW-COST BUILDING
- MORE ALTERNATIVE POWER
- MORE ORGANIC GARDENING
- MORE HOME BUSINESSES
- MORE LAND REPORTS
- MORE DOWN HOME WISDOM
- MORE, MORE, MORE!

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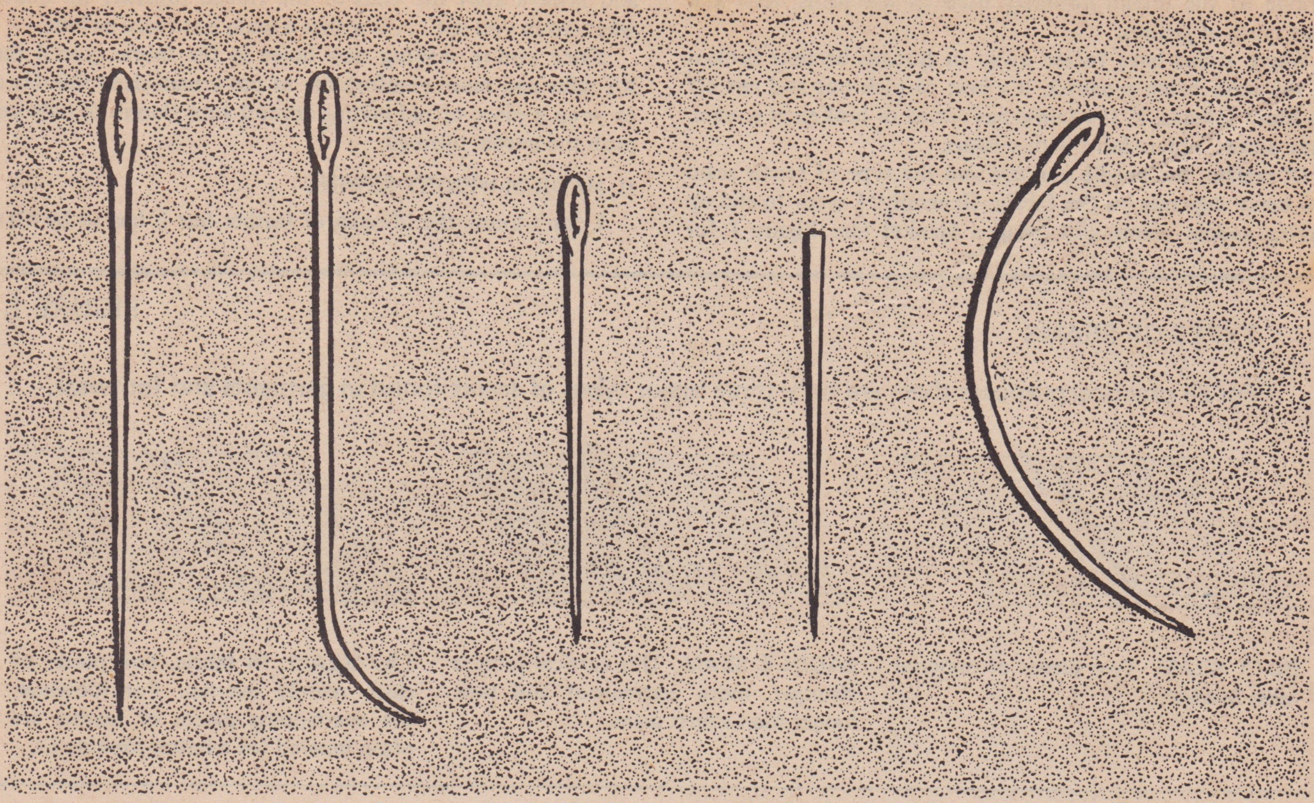

BOOKBINDERS PACKING CARPET SAILMAKERS CURVED

Survival Sewing

OR

HOW A MAN CAN REPAIR ALMOST ANYTHING PLIABLE WITH A 30¢ PACK OF FIVE NEEDLES

DONALD R. BLUM

Possibly the greatest "tool" buy in the world today is an old-timey bargain package of five strange-looking needles. You can find this packet in most dime or drug stores—Singer calls the assortment their "5 hand sewing needles"—and it sells for just thirty cents.

These man-sized instruments (at 3 to 4 inches in length, they're twice the size of regular sewing needles) can make virtually anyone an expert in the repair and recycling of worn and discarded gloves, shoes, jackets, blankets, mats, belts, knapsacks, heavy pants and shirts.

The kit contains (according to Singer) a bookbinder's needle, packing needle, carpet needle, sailmakers needle and curved needle. Armed with this assortment and the proper thread, any man should be capable of repairing and recycling a good 90% or more of any damaged, worn or weatherbeaten leather and heavy fabric goods that he'll ever own.

You'll also find that trashmongering takes on another wonderful dimension once you've mastered these five needles. Suddenly, you're able to resew and reuse all those discarded leather and heavy fabric items—even odd gloves, shoes and boots—that you've been passing by.

Basic survival sewing, as I practice it, breaks down into three classifications: [1] Items in which a needle can make new holes (lighter leathers, fabrics, vinyls, etc.), [2] Items in which the needle uses holes already made (heavy fabrics, heavy leather and shoes) and [3] Items in which new holes are made with an awl (some fabrics, leathers and many types of shoe repair).

I. LIGHTWEIGHT SEWING

For years, I've used Coats & Clark's *button and carpet extra strong thread* for lightweight sewing. It's twice as strong and

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durable as the thread normally used to sew jeans, levis and most types of jackets.

Where seams have rotted away or threads become broken on the item being repaired, it's best to pick out and cut off the loose threads. If the fabric has rotted or broken at a seam, make a neat, square joint with scissors.

Of course, the needle you use and the type of repair seam you make depends on the fabric. Generally, I seem to end up making saddle seams and using a blanket (see Figure 1 for stitch and seam illustrations). Pick the needle that fits the job and always knot the ends of the thread together no matter what stitch you use . . . it makes a seam last twice as long.

Since you're making new holes in the fabric, you'll find it's safer and more comfortable to use a man-sized thimble or to wrap a piece of old belting around your thumb to help you push the needle through.

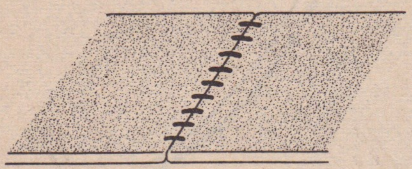
II. MEDIUM-WEIGHT SEWING

I don't know the lifespan of leather but it has to be 50 to

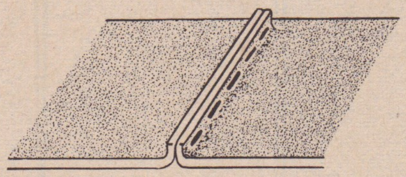
FIGURE 1.

TYPES OF SEAMS

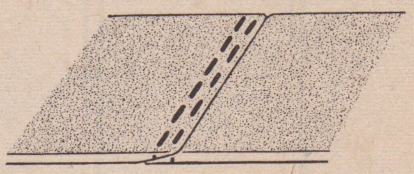
For all practical purposes there are only three major types of seams found in garments and footwear.



BUTT SEAM: Two pieces of material meet head-on.



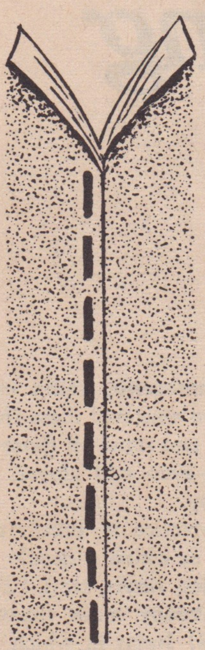
SADDLE SEAM: This vertical joint is stronger, more waterproof and lasts longer than a butt seam.



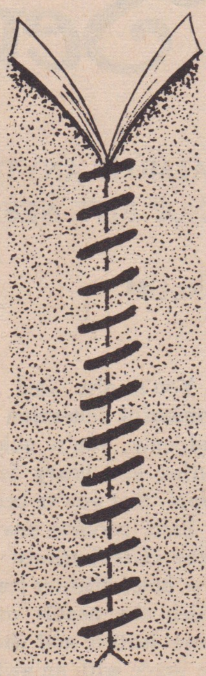
LAP SEAM: In fabric, two pieces of cloth merely overlap. For footwear, the overlapping pieces of leather are often tapered for a better-looking fit.

TYPES OF STITCHES

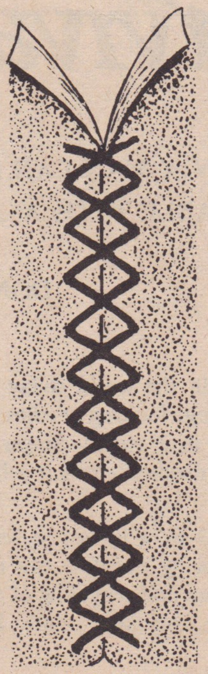
It stands to reason you can't be too fancy when you're using a big needle and heavy thread. These four, basic, simple stitches are all you'll need.



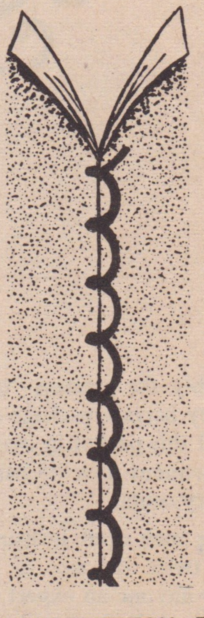
STRAIGHT STITCH: Suitable only for lightweight fabrics, this stitch is fairly weak and not very permanent.



CROSSOVER STITCH: Simplest stitch of all and useful in any recycling sewing.



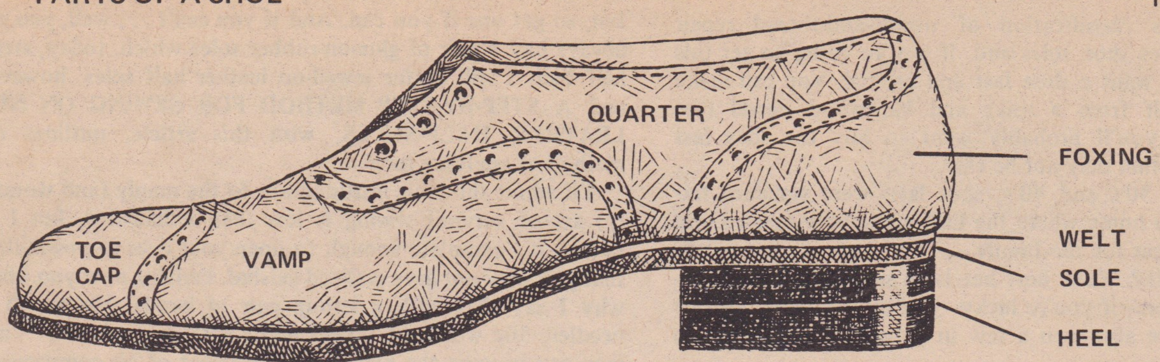
CROSS-STITCH: Good for light leather and virtually any fabric. Great holding strength.



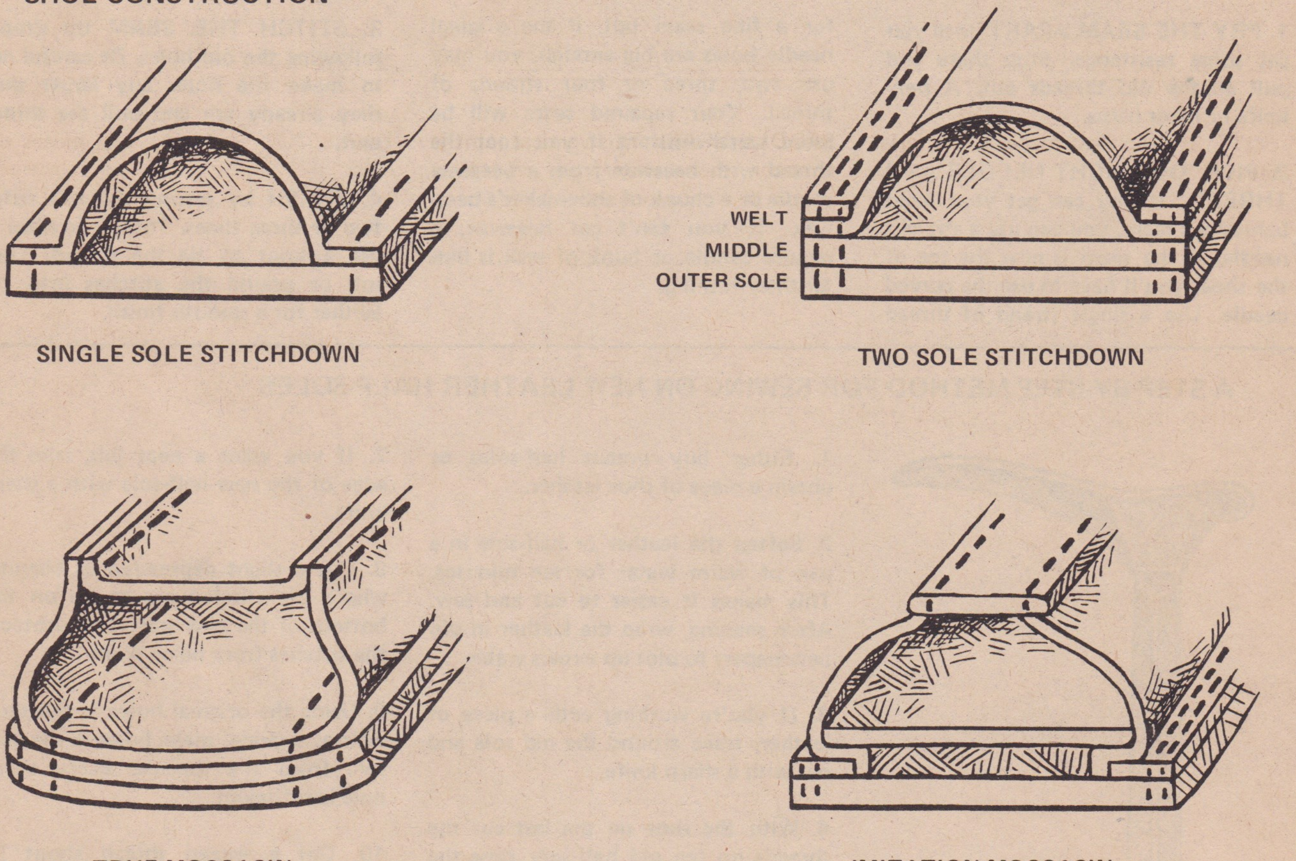
BLANKET STITCH: Each stitch is "locked" by a semi-knot. Thus, the seam can break or come apart only one stitch at a time. An excellent stitch for any material.

FIGURE 2.

PARTS OF A SHOE



SHOE CONSTRUCTION



SINGLE SOLE STITCHDOWN

TWO SOLE STITCHDOWN

TRUE MOCCASIN

IMITATION MOCCASIN

100 years or more. That's why, when you find discarded leather items, they've usually been thrown away because the stitching has rotted. In most cases, the original holes in the leather are still intact and you can make the item look virtually new just by directing your needle through them. Sometimes–when the leather in handbags, briefcases, belts and shoe seams is too thick and strong to force a needle through–the reuse of the original stitching holes is the only practical method of repair (see Figure 2 for example).

Incidentally, if you insist on trying to open new stitching holes in tough material by forcing a needle through, you'll only succeed–sooner or later–in snapping the needle and painfully skewering your hand. So stick with those original holes.

The same needles and thread used in lightweight stitching can be used for medium-weight sewing. There's a new polyester-cotton wrapped thread on the market, however, that adds another dimension of strength to medium-weight repair work. It's *Dual Duty Plus, Extra Strong* by J.P. Coats and I recommend it.

As a trashmongering by-product of medium weight stitching, you'll find you can resew old attache and briefcases you find, oil them with neatsfoot or castor oil and recycle/sell them to pawn shops, second-hand stores or–via classified ads–to individuals.

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III. HEAVYWEIGHT SEWING

To me, this classification of needle-and-thread repair primarily involves shoe soles and, if you're going to get this involved, you'll want a shoe last and an awl. You can make the awl yourself from a spike and hardwood dowel (see Figure 3) but you'll probably want to buy the shoe last (Figure 4). And that may not be easy.

Back in the 30's and 40's, shoe lasts were standard fixtures in many a home where the father regularly resoled and re-heeled footwear for the family . . . but lasts are not nearly so common today. Your best bet is to scrounge the second-hand stores where—if you're lucky—you can probably get one for a dollar. I've also seen a few in antique shops for $5 to $10 each.

In addition to making shoe repair a real delight, the shoe last serves the primary purpose of clinching nails which are driven through to the inside of a shoe from the bottom of a new sole or heel. There's really no substitute for a good shoe last, so get one if you can. And if you can't . . . well, you can always buy a pair of glue-on-rubber soles which, today, aren't half bad. I still prefer sewed-on leather half soles, however, and A STEP-BY-STEP METHOD FOR SEWING ON NEW LEATHER HALF-SOLES, with this article, outlines my method of applying them.

I'll admit that this introduction to the manly (and womanly) art of survival sewing is less than exhaustive, but I do believe it's complete enough to open your eyes to possibilities that you may not have realized existed. Perhaps now you know why I say that with a strong pair of hands, 30¢ worth of needles, 30¢ worth of thread and a little know-how . . . any man can become the recycle-sewing talent of his commune or friendship circle.

HOW TO REPAIR A RIPPED SEAM IN BOOT OR SHOE UPPERS

1. PRY THE SEAM APART until you get some resistance. Stop there and pull all the old threads out. A penknife or razor helps.

2. PICK THE RIGHT NEEDLE AND THREAD. If you can get your hand behind the seam, you can use a straight needle. If the seam is near the toe of the shoe, you'll have to use the curved needle. Use a single strand of thread for a fine seam but, if the original needle holes are big enough, you may use two, three or four strands of thread. Your repaired seam will be more water-resistant if you coat the thread with beeswax from a beeswax candle or a chunk of shoemaker's beeswax. If you can't get beeswax, a regular candle or hunk of wax is better than nothing.

3. STITCH THE SEAM by simply following the old holes. Be careful not to make the holes any larger than they already are and pull the thread taut.

4. FINISH by sewing the last stitch two or three times. There's no need to use a knot to tie the thread. Then rub or pound the stitches into the leather for a smooth finish.

A STEP-BY-STEP METHOD FOR SEWING ON NEW LEATHER HALF-SOLES

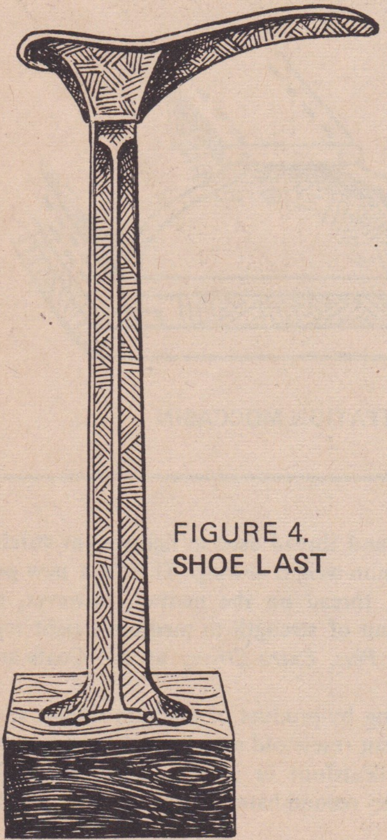


FIGURE 4.
SHOE LAST

1. Either buy precut half-soles or obtain a piece of shoe leather.

2. Soften the leather or half-sole in a pan of warm water for ten minutes. This makes it easier to cut and sew. After soaking, wrap the leather in old newspapers to blot up excess water.

3. If you're working with a piece of leather, trace around the old sole and cut with a sharp knife.

4. With the shoe on the last cut the threads on the old half-sole, raise the sole and separate with a slightly diagonal cut in the arch area.

5. Bevel the new half-sole to overlap what's left of the original sole.

6. Select a clinching shoe nail a half size longer than the combined thickness of the shoe and new sole. (Clinching nails run from 3/8" to 7/8" long.) Hammer about eight to ten nails across the joint where the bevels of the old sole and new half-sole meet. Tack down the tip and each side of the half-sole.

7. If you want a neat job, trim the edge of the new half-sole with a sharp knife.

8. Cut a slight depression or channel where the stitches are to go on the bottom of the new sole. This protects the stitches from being worn off.

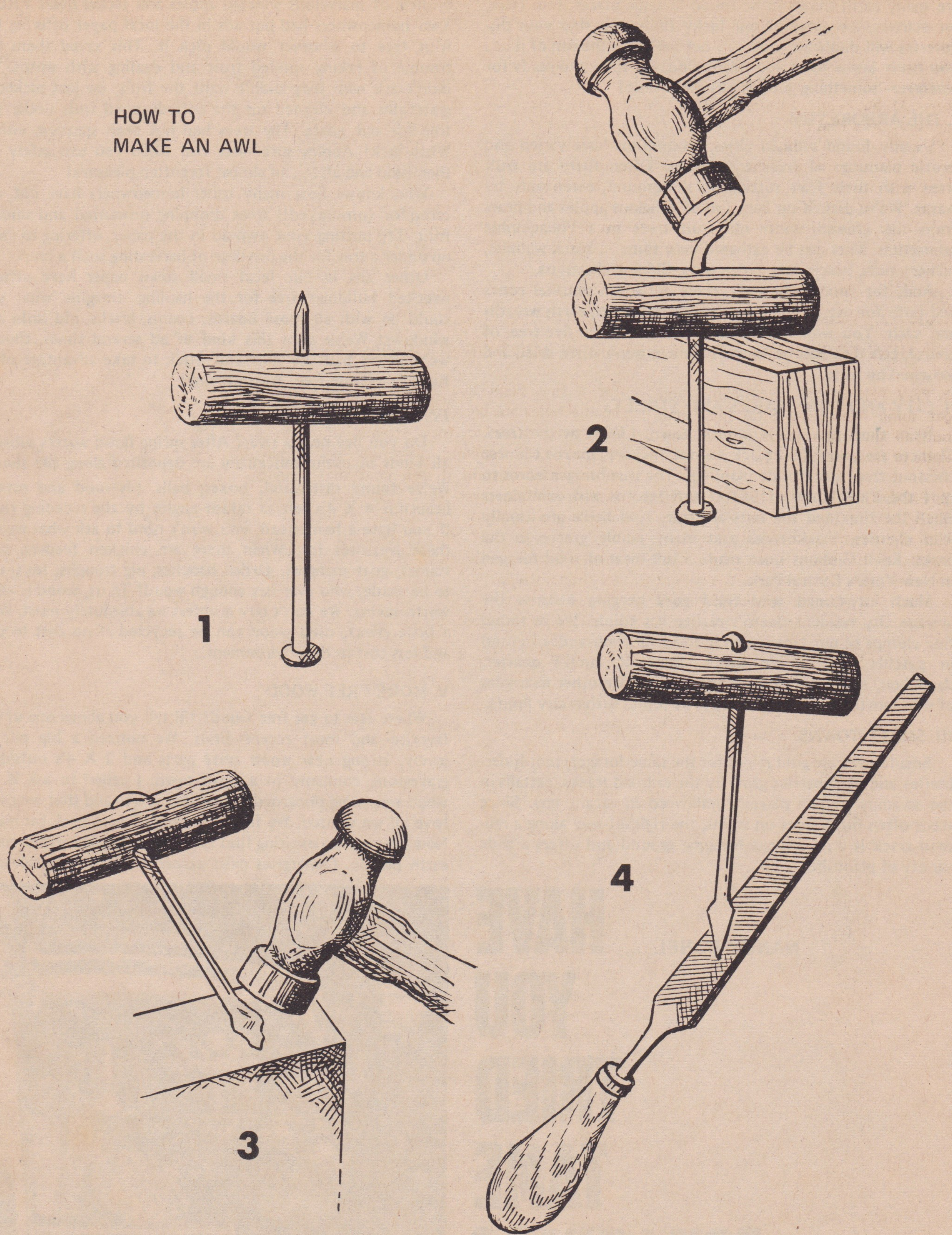
9. Using the original holes in the shoe welt as a guide, make holes in the new sole from the topside. Every other hole is sufficient.

10. Get a waxed thread about 36 inches long and thread a needle on each end. Starting in the first hole nearest the arch, pass the needles through the *same* hole (one through one way and one through the other) and continue the opposing stitches completely around the sole. Tie a knot or repeat the last stitch three times at the end and cut off the excess thread.

11. Finish by pounding down the channel in the new sole. Rub beeswax or shoe polish into all cracks, needle holes and stitches.

FIGURE 3.

HOW TO MAKE AN AWL



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HAVE YOU TRIED TAME FORAGING?

NANCY BUBEL

Foraging in the wild for fruits, nuts and greens is a great way to keep plenty of the real stuff in your menus. But there are many earth things to be found in tame places, too. Here, for starters, are some of our lucky finds. Not that your discoveries will duplicate ours . . . but isn't that the fun of it . . . you never know *what* you might find. Be open and ready for *whatever*—something good is sure to turn up!

I. THE ARBORETUM

Usually found only in cities, arboretums have varied and exotic plantings of trees and shrubs. Often there are fruit trees with their fruit rotting on the ground, eaten only by wasps. We've picked up bags full of delicious apples and pears from the ground under old fruit trees in a Philadelphia arboretum. Nuts can be gathered here too . . . black walnuts, hickory nuts, beech nuts, butternuts, Chinese chestnuts.

And, for your craft work, there are often unusual cones and pods for use in making dried arrangements, earth wreaths and such. You wouldn't wrench these from the live tree, of course, but they can be found on the ground when dried and loosened by frost.

II. CITY AND TOWN PARKS AND STREETS

Next time you cruise around town, LOOK at the trees. Chances are you'll find black walnut, hickory, maybe Chinese chestnut trees as curbside plantings. The true forager learns to spot these trees out of season and returns with containers when the time and the nuts are ripe. And there are usually wild cherries, blackberries and many edible greens in the parks. Euell Gibbons once made a full meal of food foraged in New York's Central Park.

Much city-tamed wild food goes begging because the average city resident doesn't realize it's edible. We've found fine clumps of purslane (eaten in India for thousands of years) in patches of curbside weeds. Burdock, lamb's quarter, dandelion, sorrel, chickweed and chicory are other examples of wild fare that can almost always be found within city limits.

III. SMALL TOWNS

Small towns are gold mines for the tame forager, too. Elderberries and blackberries grow by the railroad tracks, cattails in the swampy "waste places", milkweed in vacant lots. Since seeds often hitch rides on trains, the right-of-way along a railroad track is an excellent foraging ground and offers a wide variety of plant life.

Small town weekly papers have the most human want ads. You can get lots of clues here. Last fall we were able to pick bushels of marvelous winesap apples and seckel pears FREE! Two homeowners had put ads in the local paper offering the fruit free to whoever would pick it. This saved them the trouble of raking spoiled fruit and dealing with wasps. We didn't ask *why* they didn't want the fruit, we just picked it gratefully and cleaned up the soft dropped fruit under the tree for our goats. The trees had not been sprayed, either. What luck! Apples sure taste real when you can safely eat them skin and all . . . an almost forgotten pleasure!

Who knows how many other homeowners have old, uncared-for (unsprayed!) trees dropping unwanted and unused fruit. Try putting your own ad in the paper, offering to clean up under a tree for the privilege of harvesting such a crop.

Other ads in our local small town paper have offered wrecked buildings free for the hauling. Imagine what you could do with all those boards, beams, bricks, old sinks and windows! We've seen this kind of ad several times, though we've never had the time and truck to take advantage of it. Recycle a house free! Worth trying!

IV. RIVERS

Do you live near a river? After spring flood waters subside, all kinds of useful miscellany are deposited along the shores. We've found driftwood, boxes, balls, plywood and several beautiful 4 X 4's left at rakish angles by the receding river. If you have a homestead, you won't need to ask what we use these treasures for. When there are chicken feeders, cold frames, goat mangers, garden benches, pig troughs, toys, etc. to be made, who ever has enough wood? To us, wood is alive, worth saving. We don't buy it unless we absolutely must. With a little effort, used wood can be recycled at no cost to you and less cost to the environment.

V. MORE FREE WOOD

Where else to get free wood? I'll tell you about one of our favorite—and most recent—finds. We noticed a big pile of lovely, strong new wood crate parts and 2 X 4's outside a gravestone company in a small town. I called to ask if the wood was being discarded, found that it was and that we could have all we wanted. We filled the car and went back for more. Now this was an exciting find for us that should interest other earth people. Cemeteries exist across the land (regardless of

how you and I might feel about that way of using land) and not far away from each one there are bound to be small industries preparing the gravestones, or "memorials", as they are euphemistically called. The stones are shipped in by truck in sturdy wooden crates, and I'm sure that other memorial companies discard the crates just as "ours" does. So now you can build that A-frame for your pigs.

VI. TRASHMONGERING

Like others who make a game of being non-consumers, we've found it worthwhile to develop a fine eye for trash collections. Why let them burn refuse at the dump if you can use it? In the fall we load up on plastic-bagged leaves put out for the trash by residents of gardenless town and development houses. We use the leaves as bedding for our goats and chickens and as garden mulch. The bags, as long as they come with the leaves (we have a THING against plastic), are used to underlay our straw mulch in the garden row.

Some of our more picturesque finds may be worth cataloging here, if only to indicate the range of possibilities in this area! Here, off the top of my head, are a few of the useful things we've rescued from curbside trash:

Baby stroller
Hurricane lamp globe
Sled
Doll
Motors
Aquarium tank
Bird cage
Picture frames
Plywood pieces
Old books

What are the most fertile fields for foraging trash? Well, there are two ways of looking at this. Small, efficient new houses have scant storage space and the owners seem often to tend toward an early-obsolescence-of-gadgets mentality. So unused things aren't kept around long before . . . out they go! Old, capacious houses with attics, on the other hand, have a lot to offer too . . . for the opposite reason. The folks who live in such houses have room to hoard stuff for years, and when they DO clean out the attic—whee! Some of our more interesting picture frames and old books have come from this source.

What are we waiting for? Up the alleys, down the riverbanks, through the city parks and vacant lots. Call it foraging, call it serendipity. Take several empty bags and an open mind. You're sure to find something your homestead can use!

complexion of the sky
ation of the day . . .
RICHARD II, ACT 2

can discern the face of
not discern the signs

MATTHEW, 16

HOME
THER
ASTING

ARNOLD

These air masses are great lumps of atmosphere with fairly uniform temperature and moisture characteristics. They form over certain areas of the earth's surface (known as source regions), acquiring the temperature and moisture characteristics of the parent region in the process. These huge chunks of air are classified by temperature and moisture and named for the source area over which they form (Fig. 1).

There are four basic types of air masses: Warm and Dry (Tropical Continental, indicated by the symbol cT); Warm and Wet (Tropical Maritime, mT); Cold and Wet (Polar Maritime, mP); Cold and Dry (Polar Continental, cP). The maritime air masses (those originating over the ocean) are sometimes subdivided and given names such as Gulf Tropical, Atlantic Tropical, Atlantic Polar, Pacific Tropical and Pacific Polar . . . all with appropriate symbols. The names really aren't very important though, just the characteristics.

Now these monster globs of air hang around their source regions awhile, then—for reasons that no one seems to entirely understand—they break loose and go rolling across the surface of the planet in fairly regular patterns. During this migration they sometimes overrun, push into and otherwise collide with other great chunks of atmosphere of the same or sharply differing characteristics.

The edges of the air masses are called fronts and the edge of another is called a frontal zone (or frunnelzone, as they say on the six o'clock news). It's along these frontal zones that most storms and atmospheric changes occur.

Alright. We now know that gigantic hunks of air form, move across and collide on the earth's surface . . . and we have a name for that activity. We call it *weather.* It stands to reason, then, that all you have to do to forecast the weather is to learn to tell which air masses are where and the probable direction and speed in which they're headed.

I might mention, in passing, that the Polar Continental (cP)—a great, cold, dry air mass that forms over the interior of central Canada—is the major influence in the weather for all the central and eastern United States. Psych that one out and you've gone a long way toward predicting the climate for half the country.

THE WEATHER DIARY

One of the handiest and most basic (also one of the most overlooked) weather forecasting tools of all is a daily weather diary. Each day, make notes on the wind direction and speed, temperature, humidity and precipitation, cloud cover and all other weather signs and—after a month or so—you'll begin to notice and understand the exact conditions in your locality that exert certain influences over following weather.

Remember that—no matter what an overall forecast might be—each little local area has peculiarities all its own. Until you're familiar with the quirks of your particular locality, your weather predictions are apt to be just so-so. Once you've become acquainted with the real climatic character of your region, however, the accuracy of your forecasts is certain to take a healthy jump upward.

There's another point in favor of the diary: once in a while the weather becomes so uncertain that, as the oldtimers say, "All signs fail". When that happens, you can sometimes still make a better-than-average forecast by going back over your diary and looking for similar conditions. Weather has a way of repeating itself pretty consistantly.

RAW MATERIALS FOR THE DIARY AND FORECAST

Weather changes are almost always preceded by changes in temperature, air pressure, humidity, wind speed, wind direction, cloud formations or by combinations of such events. These are the signs we must learn to observe and evaluate and, since some of the changes in these signs are too subtle to be directly sensed and accurately judged by most of us mere humans, we've got to rely on certain measuring devices.

These devices can be natural (like birds, insects, animals and plants) or mechanical (thermometers,

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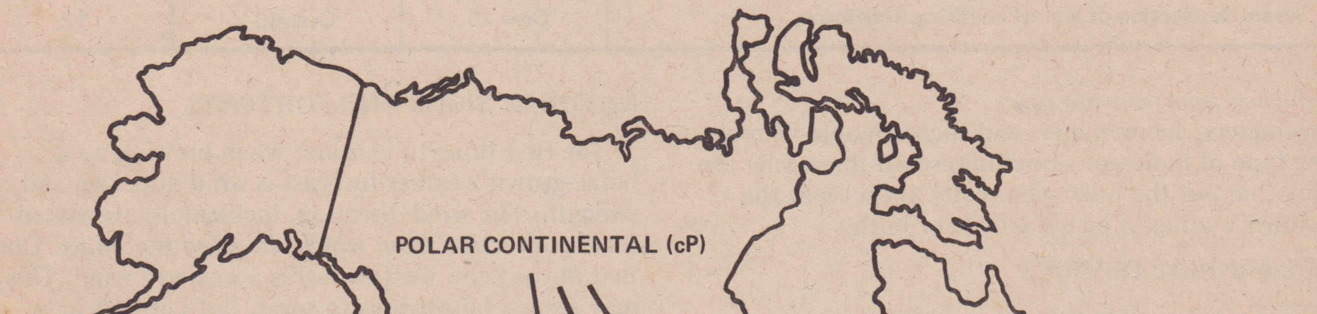

FIGURE 1. NORTH AMERICAN AIR MASSES

FIGURE 2. WIND SPEED ESTIMATING GUIDE

DESCRIPTION OF NATURAL EFFECTS	MILES PER HOUR	KNOTS PER HOUR	BEAUFORT SCALE NUMBER
Smoke rises straight up. No movement of anything.	Under 1	Under 1	0
Direction of wind shown by smoke. Weather vane not affected. Tree leaves barely move.	1-3	1-3	1
Wind felt on face. Leaves rustle slightly. Weather vane will be affected if it is very free swinging.	4-7	4-6	2
Leaves and twigs are moving. Loose bits of paper are lifted and ruffled.	8-12	7-10	3
Small branches are moved. Loose dust and paper are blown along.	13-18	11-16	4
Larger branches and small trees sway. Dust clouds.	19-24	17-21	5
Large branches in constant motion. Wind begins to whistle.	25-31	22-27	6
Whole trees are in motion. Walking is affected.	32-38	28-33	7
Twigs begin to break off. Walking becomes difficult.	39-46	34-40	8
Slight structural damage occurs. Gale winds.	47-54	41-47	9
Trees are uprooted and large limbs blown down. Heavy structural damage occurs.	55-63	48-55	10
Widespread damage. Very violent storm.	64-75	56-63	11
Severe destruction of almost anything. Hurricane.	Over 75	Over 63	12

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barometers, anemometers and such). People who use one type of indicator sometimes scorn those who use the other but the folks who really know what the weather's going to be use a little of both.

MECHANICAL DEVICES

While it's possible to learn to judge temperature and barometric pressure pretty accurately by natural signs alone, a thermometer and a barometer are very handy and inexpensive to obtain. Come to think of it, outside of a weather vane and one or two other instruments you can make at home, a thermometer and a barometer are about the only store-bought or man-made weather detectors that are really essential.

Of course—if you're into a heavy science and technology thing, have a fetish for dials and knobs and money's no object—you can purchase all manner of measuring devices which have remote sensors connected to big, official-looking dials. Mounted on the wall of your den or study, these dials will give you constant readings of wind direction, wind speed, barometric pressure, temperature and most anything else you want to know. You can even get instruments that chart continuous graphs on strips of paper and make your friends very nervous . . . and you can set up your own complete weather station for about $600.00. Personally, however, I don't feel that such elaborate rigs are necessary.

NATURAL SIGNS AND PORTENTS

The first thing to consider when brewing up a home-grown weather forecast is wind direction and strength. The wind direction, incidentally, is named for the direction *from which the wind is coming.* One that blows from west to east is a westerly wind. This may seem a bit obvious to some, but I always have trouble remembering it. A good, free-swinging weather vane is handy, easy to build and mandatory if you have a barn roof without one.

In the United States, the prevailing wind is westerly. In the summer, it's frequently southwesterly and in the winter, northwesterly . . . but, nevertheless, westerly.

A prevailing wind indicates fair weather and a non-prevailing wind (one that comes from another direction) signals the approach of a storm, due to the counter-clockwise circulation of winds around a low pressure—or storm center—area.

As a storm center approaches, you'll notice the wind begin to change from westerly to southwesterly to southerly. This is called a *backing wind.* When the low pressure air mass is directly over you, the winds will continue to change (this time to northerly or easterly, depending on where you are in relation to the storm) and these are called *veering winds.* And as the center continues eastward past you, the winds return to their prevailing westerly direction.

All storms in the northern hemisphere revolve counter-clockwise around a central low pressure area this way so—if you face into the wind and point to your right—you'll always be pointing toward the nearest storm center or low pressure area.

This wind activity is neatly summed up in an old weather proverb:

> *When the wind is in the south,*
> *The rain is in its mouth.*
> *When the wind is in the east,*
> *It's neither good for man nor beast.*
> *The wind in the west*
> *Suits everyone best.*

By the way, the backing winds mentioned above frequently cause the leaves of trees to curl and show their undersides . . . so, when the oldtimers say they can look at a tree and see a storm approaching, they're not joshing. Now that you know the secret, you can predict heavy weather the same way.

Atmospheric pressure is another good indicator of weather activity. Simply knowing the atmospheric pressure (also called the barometric pressure) at any given moment, however, is about as useful as knowing the time on a stopped clock. Unless you know what the pressure has been over a period of time,

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FIGURE 3. WIND & ATMOSPHERIC PRESSURE GUIDE

WIND DIRECTION	ATMOSPHERIC PRESSURE	TYPE OF WEATHER INDICATED
SW to NW	30.10 to 30.20 and steady	Fair, with little temperature change for the next day or two.
SW to NW	30.10 to 30.20 and rising rapidly	Fair, followed by warmer and possible rain within two days.
SW to NW	30.20 or above and steady	Fair, with little or no temperature change.
SW to NW	30.20 or above and falling slowly	Fair, with slowly rising temperature for the next day or two.
S to SE	30.20 and falling rapidly	Wind increasing and rain within 12 to 24 hours.
SE to NE	30.10 to 30.20 and falling slowly	Rain within 12 to 18 hours.
SE to NE	30.10 to 30.20 and falling rapidly	Increasing wind and rain within 12 hours.
E to NE	30.10 or above and and falling slowly	In winter, rain within 24 hours. In summer, rain may not fall for several days. Winds.
E to NE	30.10 or above and falling rapidly	In winter, rain or snow with increasing winds. In summer, rain probable within 12 to 24 hours.
SE to NE	30.00 or below and falling slowly	Rain will continue for another day or two.
SE to NE	30.00 or below and falling rapidly	More rain with high winds. Followed in a day or two with clearing and colder.
S to SW	30.00 or below and rising slowly	Clearing within a few hours and remaining clear and fair for several days.
S to E	29.80 or below and falling rapidly	Severe storm soon. Batten the hatches. It will be followed within 24 hours by clearing. In winter, followed by colder.
E to N	29.80 or below and falling rapidly	Severe Northeast gale and heavy rain. In winter, heavy snow followed by cold wave. Bad news, in general.
Returning to W	29.80 or below and rising rapidly	Clearing and colder.

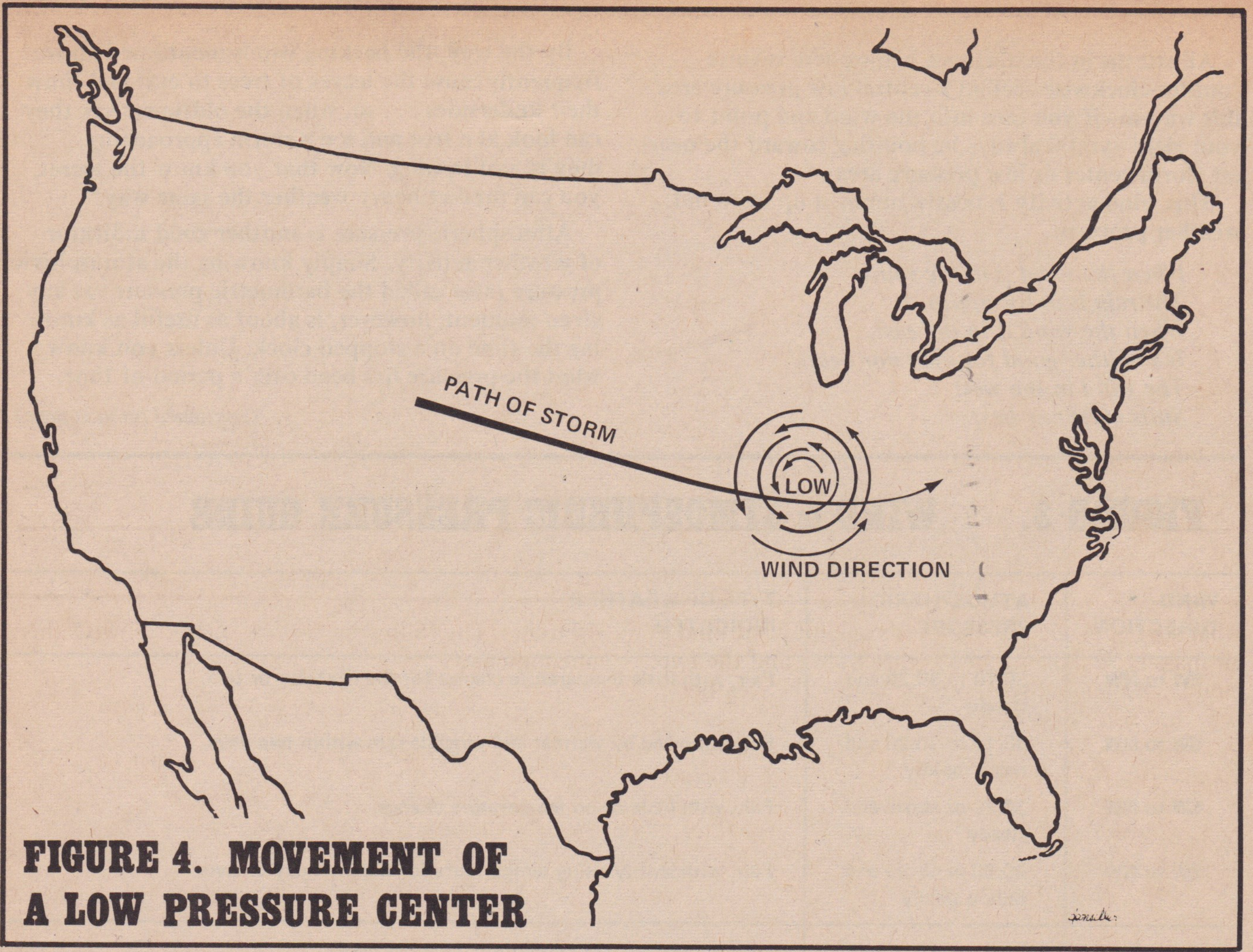

FIGURE 4. MOVEMENT OF A LOW PRESSURE CENTER

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whether it's been rising or falling and if its action has been fast, slow, regular or erratic . . . you really can't use atmospheric pressure to predict anything.

To use a barometer (the standard instrument for measuring atmospheric pressure) most effectively, then, we should note its reading every hour or so. Better yet—according to those who love to play with gadgets—is a recording barometer that traces every little change on a graph. Most of us, though, find it quite sufficient to have a simple little $1.98 barometer hung on the back porch for a quick glance first thing in the morning, last thing at night and as we come in from the fields for our mid-day meal.

There are a good many natural signs that indicate changes in atmospheric pressure, too. Some are quite obvious and others are pretty subtle. For instance—due to the drop in pressure that preceeds rain or a storm—birds and animals become restless, uneasy, more active and noisy. Flying insects swarm and seem more numerous and annoying. Smoke rises slowly and may even droop slightly. Bees stay closer to the hive. Swallows and bats fly very low. Ants get unusually busy and scurry about moving their eggs from place to place. Sound travels much further during a low and smells seem much stronger as the lesser atmospheric pressure allows the earth to release more of its odors.

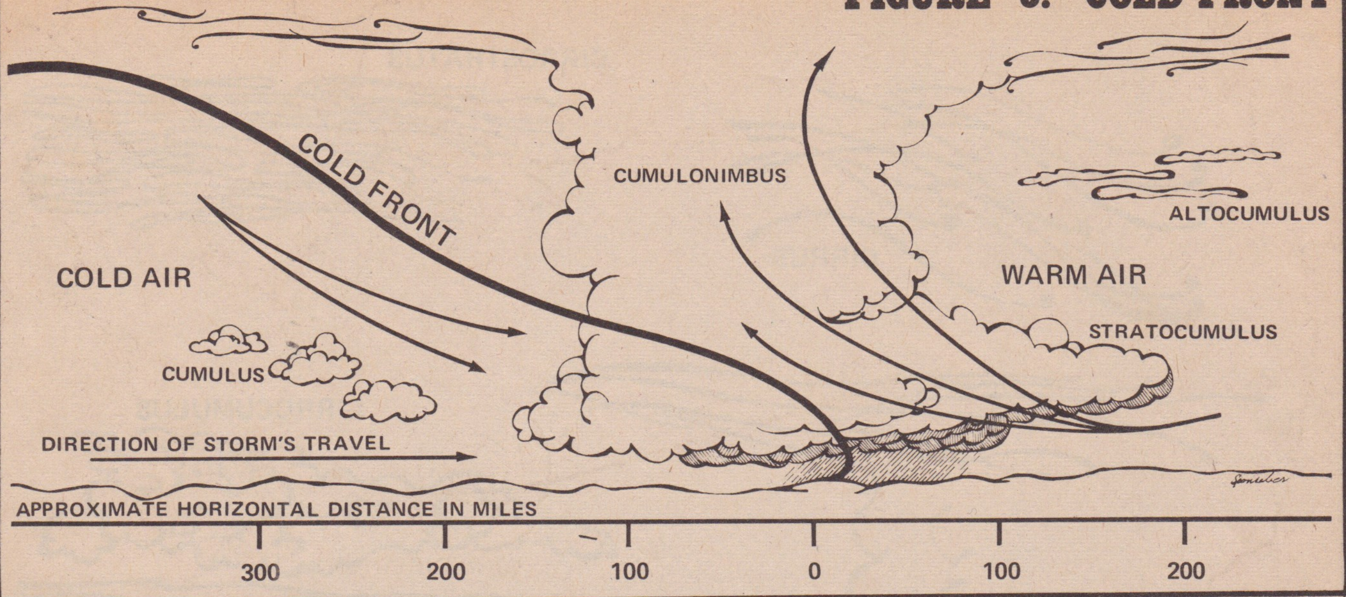
Sound traveling far and wide,
A stormy day will betide.

When the atmospheric pressure rises—particularly if the increase is the result of a great polar continental high out of Canada—the stale smell in swamps and ditches will diminish, giving the air a fresh (almost neutral) smell. Smoke rises straight up to great heights and birds fly high. Fish become more active and swim nearer the surface (it's a good time to go fishing). During the winter, the ice on frozen ponds and lakes will begin to crack and boom during periods of rising pressure. People seem happier and friendlier also and, if you've got business to do or something to sell, this is the time to do it.

Many other natural weather signs are activated by changes in atmospheric pressure. For instance, rain is indicated by the flowers of the chickweed if they're closed in the morning; if they're open, the day will be fair. Some forecasters state that gentianella and pimpernel give the same predictions but, since I've never seen either plant, I can't confirm it. I do know that old houses, old furniture and old people will creak and groan with a pressure change either way.

Clouds can generally be relied upon to tell you

FIGURE 5. COLD FRONT


COLD FRONT
CUMULONIMBUS
ALTOCUMULUS
COLD AIR
WARM AIR
STRATOCUMULUS
CUMULUS
DIRECTION OF STORM'S TRAVEL
APPROXIMATE HORIZONTAL DISTANCE IN MILES
300
200
100
0
100
200

what sort of air mass surrounds you and what kind of air mass is on the way (see Figure 8) . . . and the two cloud types most useful for predicting the weather are cumulus and stratus.

Various clouds of the cumulus family are associated with cold air masses or cold fronts (see Figure 5) and usually indicate the possibility of short, hard rains followed soon by clear skies and fair weather. The higher the cumulus clouds behind the front, the longer and drier the clear spell will be.

Stratus clouds of one kind or another generally accompany masses of warm air and warm fronts (see Figure 6) and are signs of long, steady, gentle rains and skies that will stay grey and cloudy until the next cold air mass comes along. These warm fronts can be accurately predicted 12 to 16 hours in advance by a halo around the sun or moon. If the sun or moon simply looks fuzzy, the front will arrive in about 8 or 10 hours. The following two proverbs deal with this phenomena:

> *"The moon with a circle brings water in*
> *her back"*
>
> *"If the moon shows a silver shield,*
> *be not afraid to reap your field:*
> *But if she rises haloed round,*
> *soon we'll tread on deluged ground."*

There are many other proverbs, maxims, precepts and sayings that have to do with warm and cold fronts and the clouds that accompany them. Most of these dictums add little to the previous explanation but they do serve as a useful shorthand method of remembering valuable weather lore. As an exam-

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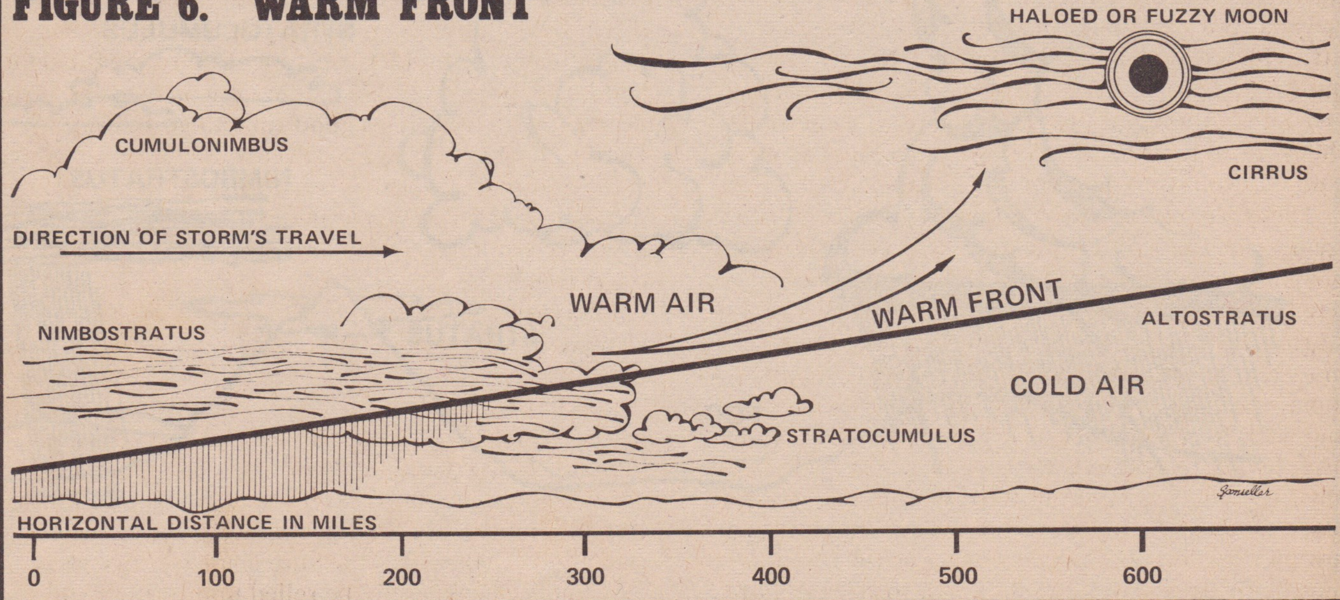
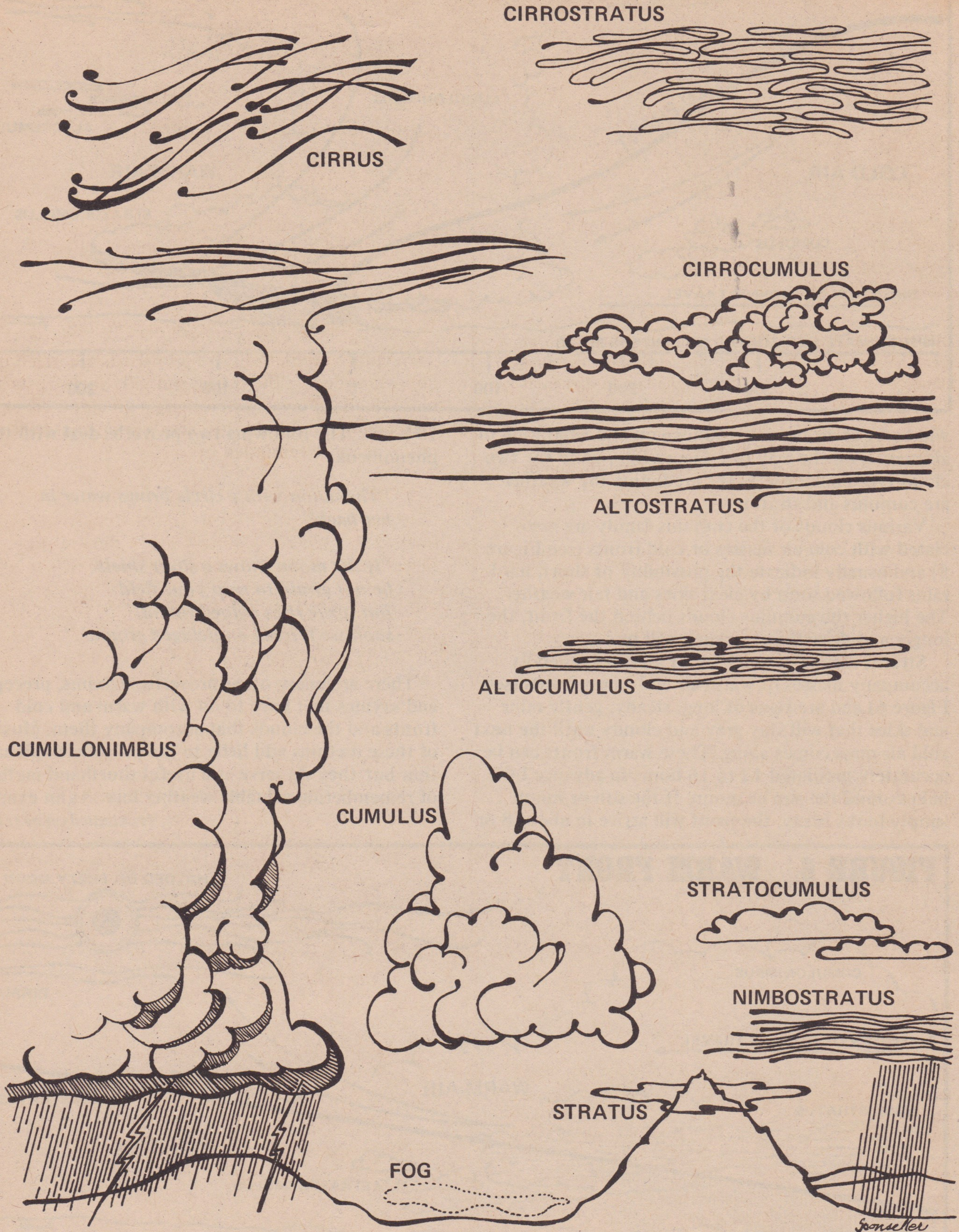
FIGURE 6. WARM FRONT


HALOED OR FUZZY MOON
CUMULONIMBUS
CIRRUS
DIRECTION OF STORM'S TRAVEL
WARM AIR
WARM FRONT
ALTOSTRATUS
NIMBOSTRATUS
COLD AIR
STRATOCUMULUS
HORIZONTAL DISTANCE IN MILES
0
100
200
300
400
500
600


CIRROSTRATUS
CIRRUS
CIRROCUMULUS
ALTOSTRATUS
ALTOCUMULUS
CUMULONIMBUS
CUMULUS
STRATOCUMULUS
NIMBOSTRATUS
STRATUS
FOG
Sponseller

(continued from preceding page)

ple, the thin and wispy cirrus clouds that precede the long rains of a warm front are immortalized thusly:

Mackerel sky and mares' tails
Make tall ships lower their sails.

We're reminded that warm fronts give an early warning of their long rains while the short, hard thunderstorms of a cold front build rapidly by:

Rain long foretold, long last,
Short notice, soon past.

As night cloudiness increases before a rain, some stars become hidden while patches of others remain visible. This phenomenon has inspired:

When the stars begin to huddle,
The earth will soon become a-puddle.

Accurate predictions of night frosts are often quite important during the spring and fall. Such frosts are more likely to occur when there's no cloud cover to help blanket and hold the earth's nocturnal heat radiation as we're reminded by:

Clear moon, frost soon.

In warmer weather, dew—rather than frost—is formed on cloudless nights. Dew in the morning, therefore, is an indication of fair weather to follow:

When the grass is dry at morning light,
Look for rain before the night;
When the dew is on the grass,
Rain will never come to pass.

and

When the morn is dry, the rain is nigh;
When the morn is wet, no rain you'll get.

Sky colors and such aren't much noted by meteorologists but they can sometimes be good signs on which to base weather predictions . . . as one of the most consistantly accurate proverbs illustrates:

Red sky in the morning
Is a sailor's sure warning;
Red sky at night
Is the sailor's delight.

or

Evening red and morning gray
sets the traveler on his way;
Evening gray and morning red
Brings the rain down on his head.

Rainbows can also be pretty reliable forecasting tools. Since you can see a rainbow only by looking toward rain with the sun at your back, it's quite evident—with the sun always in the east in the morning—that any rainbow you observe in the forenoon must be to the west. There's a good chance that the prevailing movement of air masses will bring that rain

(continued on next page)

FIGURE 7.

CLOUD TYPES

CIRRUS: Very wispy, feathery clouds which form at great heights. Due to this height, cirrus are the first clouds to color before sunrise and the last to darken at sunset.

CIRROSTRATUS: Veil the sky with the thin, overall whitish haze which produces a halo around the sun or moon. Cirrostratus clouds with wispy, defined edges are often called "mares tails".

CIRROCUMULUS: Resemble cirrus clouds but are sort of tufted or rippled like sand on a beach. Cirrocumulus are clouds of the "mackerel sky".

ALTOSTRATUS: Similar to cirrostratus, but more dense. This denseness causes the soft-edged corona around the sun or moon.

ALTOCUMULUS: One form of altocumulus, called "sheep backs", looks like a layer of cotton balls and a second form has the appearance of long rolls or bands of cotton bunched together. The regular, parallel bands of the second form are easily distinguished from the "mackerel sky" cirrocumulus.

CUMULUS: The beautiful, fluffy, white puffs that scatter over a fair weather sky.

STRATOCUMULUS: These long, flattened puffs are what good little cumulus clouds turn into by the end of the day.

NIMBOSTRATUS: Ragged scud or rain clouds which form beneath altostratus and lower as the rain begins.

STRATUS: Very low, horizontal, layer clouds that seem dense and thick. Undersides are frequently greyish. If these forms are broken into fragments or shreds, they're called fractostratus . . . which is a nice word.

CUMULONIMBUS: With flattened and horizontal bases and tops that pile up to great heights, these "thunderheads" are a fairly sure sign of rain, thunder and lightning. Because of their height, the tops of cumulonimbus clouds can be seen from many miles away . . . long before their bases are visible.

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toward you. Conversely, a rainbow in the evening marks rain that is probably moving away from your location:

> *Rainbow at night, shepherd's delight;*
> *Rainbow in morning, shepherd's warning.*

Even more accurate is the relationship between a rainbow, the wind and rain . . . if you can remember that windward is the direction from which the wind is coming and leeward is where it's headed:

> *Rainbow to windward, foul falls the day;*
> *Rainbow to leeward, rain runs away.*

Actually, there's just no end to old folk sayings that can help you predict the weather. There's one about Dutchman's britches in the morning foretelling fair weather in the afternoon . . . the exact wording of which I've long forgotten. No matter. What it means is that a patch of blue on an otherwise cloudy or rainy morning heralds clear skies later in the day. It seems to work more often than not.

If you tire of pithy folk predictions, you can always fall back on weather indicators from the bible . . . such as:

> *When ye see a cloud rise out of the west,*
> *straightaway cometh the rain; and so it is.*
> *Luke 12:54*

Come to think of it, though, this sign is not as reliable as many of the others . . . due, no doubt, to the erratic nature of both storms and prophets.

Maybe Luke should have backed off a hair and relied a little more heavily on good ol' rule-of-thumb . . . such as the down home reckoning that says you can sometimes (particularly in autumn) judge the path of a storm by distant lightning in the sky. Since most weather does move from west to east, lightning in the north or south generally signals a storm that will pass you by while lightning in the west is a reasonably sure sign that heavy weather will soon reach you.

LONG RANGE FORECASTS

Here's where y' takes yer chances. Long term weather predictions can be uncannily accurate or hopelessly absurd . . . depending on where you're located, how you interpret the signs and whether or

FIGURE 8. GUIDE TO FORECASTING WEATHER BY THE CLOUDS

CLOUD TYPE AND APPEARANCE	
1. HIGH CLOUDS: CIRRUS, CIRROSTRATUS, CIRROCUMULUS	
If clouds are thin and white and in scattered patches with westerly winds	Weather will be fair with no change.
If they thicken or fuse together and seem to grey or yellow a bit . . . or if the high clouds gradually get lower and are followed by thicker clouds forming underneath, and the high clouds move from the south or southwest while surface winds are veering from the east	You'll probably get rain within 12 to 24 hours with some wind and reduced visibility. Sooner or later this will change to warmer and the winds will shift to become southwesterly.
2. MIDDLE CLOUDS: ALTOCUMULUS, ALTOSTRATUS	
If patches of these clouds seem to come together and fuse into sheets or stratified layers . . . and their movement is from the south or southwest with surface wind veering easterly, or if there is a sun or moon corona present	You'll probably get rain in 6 to 12 hours with southeasterly winds and a change to partly cloudy and warmer with southwesterly winds.
If patches of clouds are moving fast from west or northwest and if surface winds are southwesterly or southerly	Wind will probably shift to become northwesterly, with hard, short rains followed by clearing and cooler.
If the patches appear in the middle of the morning on a humid summer day and have castle shaped lumps extending from a common base	You can expect thunderstorms and gusty winds later in the day.
If the clouds are isolated with patches of open sky and are moving in the same direction as the surface wind	Weather will remain fair with little or no change.
If altostratus layers darken and lower from the south or southwest, and surface winds are backing from the east and southeast and/or sun becomes hazy	Long, steady rains approaching in a few hours. Warm front will pass followed by warm southwest winds and clouds.

not you live right.

There's no doubt that some seasonal forecasts have a strong basis in fact. We know, for example, that a more or less continuous covering of snow prevents the alternate freezing and thawing of the ground that is damaging to wheat and other winter grains. Such a winter also usually delays the blooming of fruit trees until the danger of killing frosts is past. So it rings true when we say:

> *If there be neither snow nor rain,*
> *Then will be dear all sorts of grain.*

and

> *A year of snow, fruit will grow.*

Another proverb—right more often than wrong—is based on the observation that weather which is mild until Christmas can turn really fierce for the rest of the season:

> *A green Christmas makes a fat graveyard.*

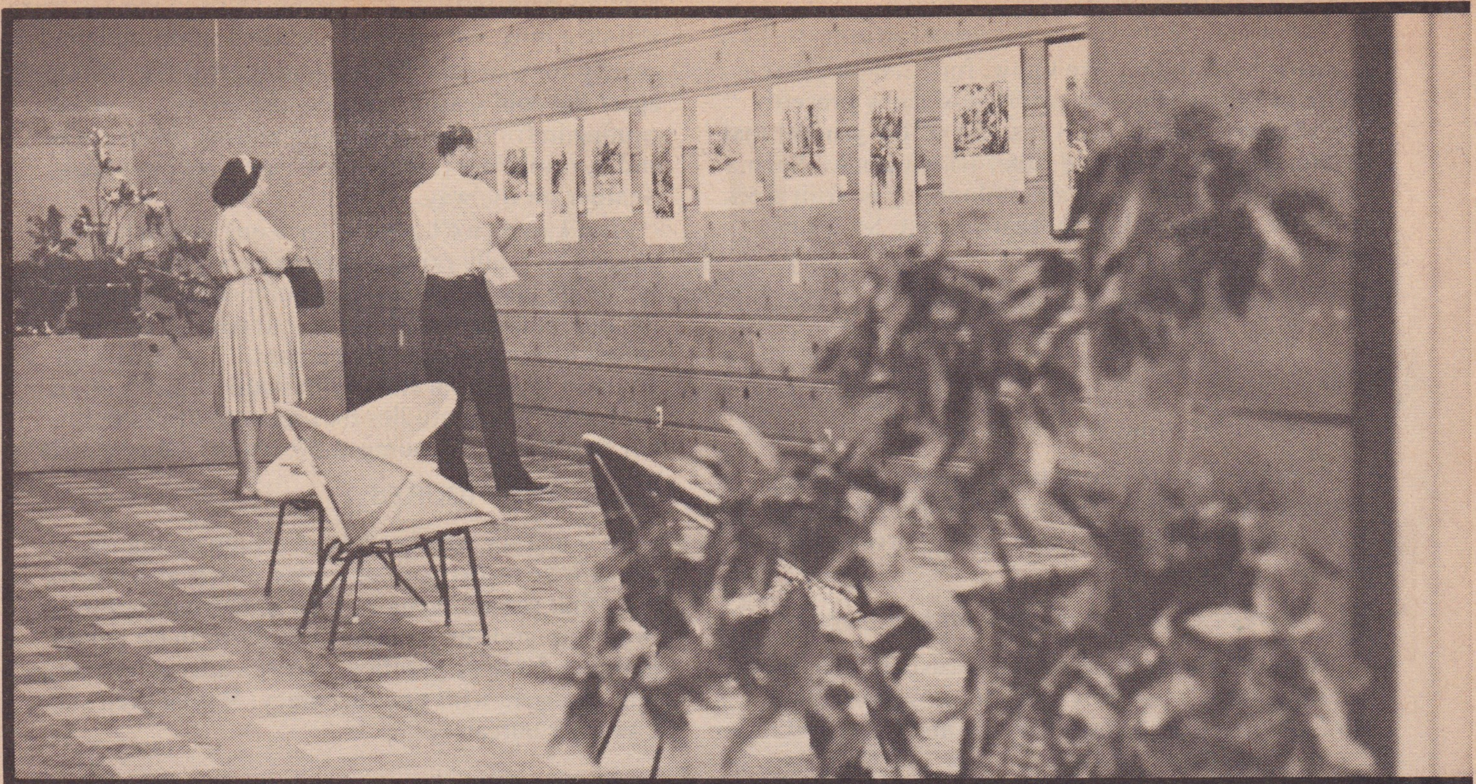
Then there's the long term forecasts that certainly sound good . . . but only seem to prove out about 50% of the time. Things like: if cats, foxes and other animals have particularly heavy coats in the fall there will be a long, hard winter . . . when husks adhere closely to corn ears and are unusually difficult to pull apart the cold season will be most severe . . . skunks coming in from the woods and nesting under barns and outbuildings (and houses!) are a sign of rough weather on the way.

And I guess we'll always have our seasonal prophets who really raise eyebrows by saying things such as, "Wide brown stripes on woolly—bear caterpillars in the fall indicate a mild winter but narrow brown stripes foretell a winter that is hard." The American Museum of Natural History has done a series of annual woolly-bear studies that seem to disprove this . . . but that hasn't discouraged the woolly—bear watchers.

FACTS AND FIGURES

So much for weather lore. Accompanying this article is an assortment of tables, charts and illustrations that should be more than somewhat helpful as you begin your own predictions. With these handy guides and a little practice, you can amaze friends and stun strangers with your accuracy. Maybe even start a weather bureau.

3. LOW CLOUDS: STRATOCUMULUS, STRATUS, NIMBOSTRATUS	
If stratocumulus clouds are rounded and open patches of sky are showing with clouds moving in the same direction as the surface winds	Weather won't change for at least a day or so.
If they fuse and become grey and form an overcast	Good chance of rain developing
If a long, rolled stratocumulus cloud bank appears in the west or northwest and surface winds are coming on strong from south or southwest	You'll probably get sudden short, hard rains followed by clearing and cooler.
If you've got a thick stratocumulus cloud cover and it begins to get higher and sort of wrinkle up with breaks here and there and the wind is steady from the west	Weather will clear and get cooler.
If you see stratus clouds in the morning and wind is light	Clouds will break up soon and sky will be clear.
If dark nimbostratus clouds have formed out of lowering altostratus and clouds are coming from the south or southwest and surface winds are southeasterly	You're almost sure to get steady rain followed by clouds breaking up and warmer weather with wind shifting from south or southwest in a few hours.
4. VERY LOW, VERTICAL CLOUDS: CUMULUS, CUMULONIMBUS	
If cumulus clouds are alone in the sky and do not develop until afternoon	Fair weather with clouds breaking up at the end of the day.
If cumulus clouds form in the late morning on a humid day and build up throughout the afternoon	You'll get thundershowers in the afternoon or evening.
If cumulonimbus clouds develop in individual masses and come on from the south or southwest	You'll have fresh winds from the south or southwest with thundershowers in the afternoon or evening with possible hail and short, hard shifting winds.
If cumulonimbus or heavy cumulus clouds appear in solid banks on a line from the west, northwest or north and surface winds are strong from the south or southwest	Possibility of hard thunderstorms, squalls and a sharp windshift from the west or northwest, followed by clearing and cooler.
If heavy cumulonimbus develop very dark or bulbous or breast-shaped bottoms which seem to build downward	You're almost certain to get severe thunderstorms and hail. Watch carefully for tornados.



I've been drawing and painting ever since I was a kid, but I was almost forty years old before I discovered a way to sell my work. In fact, for most of those years it didn't occur to me that anyone might be interested in buying! Of course, many people said they liked my work (and some hinted that they'd accept gifts), but none offered to buy. Meanwhile, I made my living mostly as an advertising artist, hating more and more the business of trying to trick people into making unnecessary purchases.

In 1964 I got involved in the campaign for Fair Housing in California and I was assigned to raise some money. Like most amateur fund raisers, I didn't relish the task and had very few ideas on how to do it. I *did* know that the less you spend to raise the money, the less you have to raise . . . so instead of putting on a dinner or an entertainment I decided to go for cash donations, cold turkey.

Since I wanted to make those donations as large as possible, I got to thinking of ways to encourage big checks. At the time I was feeling guilty because I seldom got out to paint on weekends as I once had and it occurred to me that if I offered to paint a watercolor for each person who gave a large amount it might kill two birds with one stone. Well, I did it, half a dozen people took me up on the offer and when the campaign ended I started painting.

Naturally, I was elated to find all six people pleased with the watercolors they received and I was further encouraged to discover that some of my friends and co-workers also admired the paintings. I began to wonder if they would be willing to pay for my work and I decided to make a test. During the next few months I produced about twenty paintings which I considered worth showing and I then went looking for a place in which to put them.

My plan was to hold a show for relatives, friends, co-workers, neighbors and anyone else who might wander in. I wanted a place that was accessible to all, with adequate parking and room for displays that could be well lighted. I soon realized that the ideal spot would be an empty store in a shopping center! Luckily, I found just what I needed in my own neighborhood and the owner offered to let me use it free if I would leave the "For Lease" sign in the window.

At the time I considered this a rare bit of good fortune, but I have since discovered that I can make similar arrangements in other shopping centers. Landlords and their agents are always anxious to bring more customers into their centers, because many of their tenants pay rent based upon income. More customers mean more money and an art show—which adds a touch of class—is just the thing to bring those customers in. Interestingly (and I always point this out) every store I have used has been rented before my show ends!

About then, the wheels in my head began to churn in earnest. If this first show were a success, why not have others? If people who knew me would buy paintings, why wouldn't strangers? I began to analyze it as a merchandising problem. Because of my advertising background I found myself asking questions which most artists never think to ask, let alone answer.

The first question was: How much is one painting worth—not in terms of esthetics, but in materials,

—Working For The Fun Of It—

HOW TO SELL YOUR PAINTINGS

DAVE COMSTOCK

time and overhead—and what must I charge for it?

I estimated that it takes me an average of two hours to paint a watercolor (I always paint outdoors and light changes so much in two hours that the scene before me is no longer the same). But that is not my only time investment. I must count the hours spent traveling to and from painting locations and any time spent on an earlier occasion searching for likely painting spots.

Some of my work doesn't make it, must be discarded and the time spent on such paintings figured as overhead expense. Preparing mats and hanging exhibits also takes time.

When I finished adding in my material costs (paper, paint, matboard) and figuring my time at $10 an hour, I decided I could afford to sell unframed watercolors for thirty-five dollars each.

Then I made a personal survey of pictures in department and variety stores and found that my price for an original painting was competitive with the price tags on their mass-produced copies. This meant that I could compete for a share of, probably, the largest picture market in the world.

Because I wanted money as well as applause, I called my event an art "sale" instead of "show." I hand-lettered an invitation, had several hundred copies printed by photo offset and sent one to everybody I could think of. I used every mailing list I had (Christmas card, office, political, etc.), and then I went through the phone book and sent an invitation to each name I recognized that wasn't on my lists. I also mailed an invitation to every local paper.

Next, I hand-lettered a dozen or so posters with felt pens and all of the stores in the shopping center allowed me to put posters in their windows or on the front of their shops. I also placed posters on the bulletin boards of the branch libraries in three or four nearby communities. Finally, I put a large poster in the front window of my store and displayed signs on an easel set up out in front.

Because many people go away on weekends, I decided to open my exhibit on Thursday evening and close it late on Monday. That way, if people couldn't come to the show on the weekend, they could see it on Friday or Monday.

I decided to have a drawing for a free painting so that I could build up a mailing list for another show. Although I was interested primarily in names and addresses, I happened to put a question on the entry blank asking people which paintings they liked best. I didn't know it at the time but that turned out to be the smartest thing I did.

After the sale started, I found that many people would come in, spend a few minutes looking around and then start to leave. Before they could get out I would ask if they wanted to win a free painting (and they all did), so they took the form and started to fill it out. Then they discovered that I wanted their opinion and the fun began!

Each person would go back to the paintings and spend anywhere from thirty minutes to two hours looking them all over again. Naturally, once I learned this, I saw to it that every person who came in the door was handed an entry blank! Some people who said they didn't have time to look carefully would come back later and bring all their family and friends.

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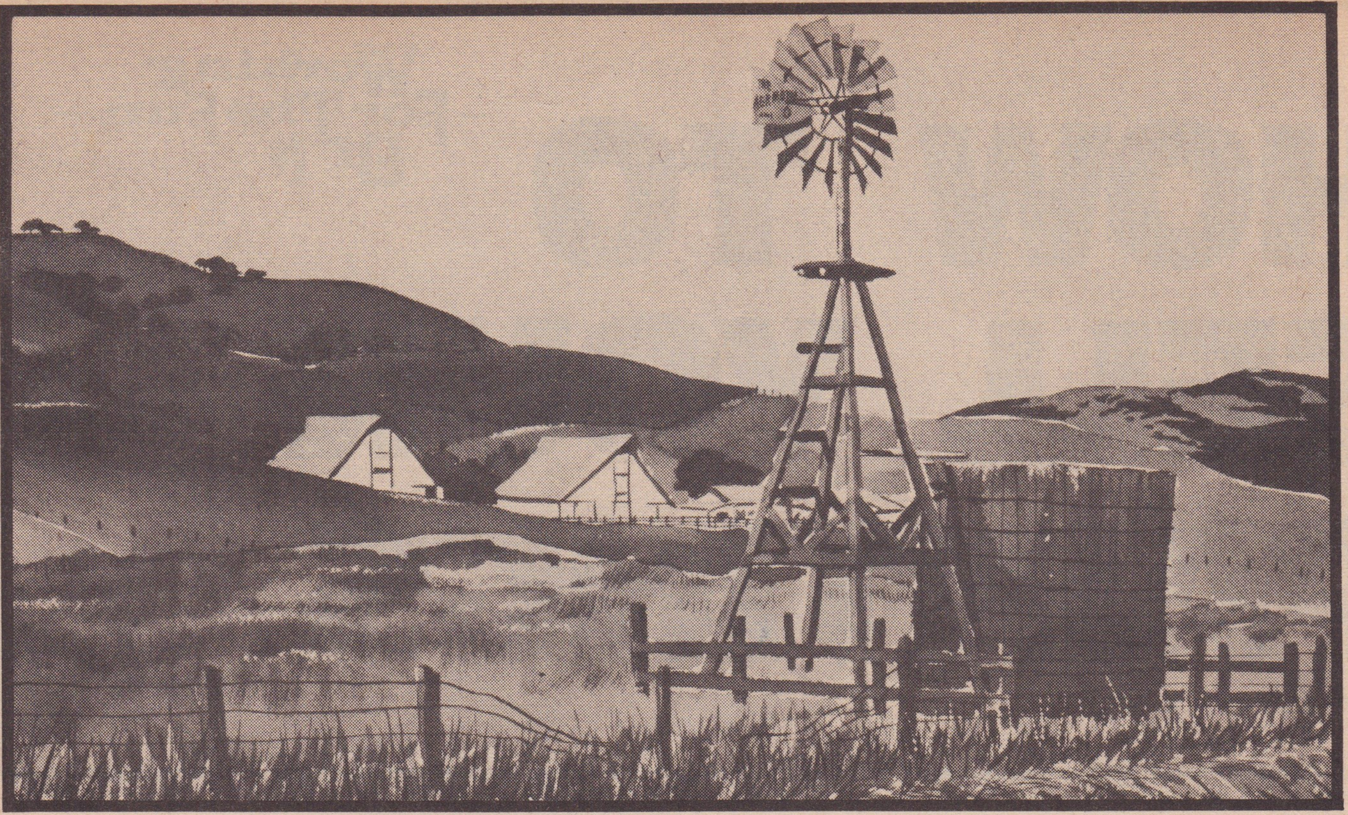

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Well the question had been, would people like the paintings enough to pay cash and take them home? The answer was yes. More than half the paintings were sold in three days. The only troublesome thing about the whole affair was the query, asked over and over again: "Why are all the paintings thirty-five dollars?" Everyone seemed to think that some paintings *ought* to cost more than others.

For my second sale, I raised the price on half the paintings to fifty dollars and left the others at thirty-five . . . and I found that I sold just as many at one price as at the other. Only now, everyone asked what the difference was! I resisted an impulse to say it was fifteen dollars in my pocket and merely said that I liked the higher priced ones a little more, which was true.

I've now held a number of sales and, at each one, I've varied some part of the procedure in order to test my assumptions. Now I'm satisfied that on the very first attempt I came pretty close to the correct solution. Furthermore, I believe that I've developed a formula which can be repeated innumerable times by myself or by others with success. This year I plan to hold at least six sales—each in a different locality—and, if my theories hold up, I may have even more shows. If I run into problems, I'll try to discover where the fault lies and adjust the formula until it works again. Here's the basic rules:

I. HAVE A UNIQUE PRODUCT

You should have a unique product to sell . . . something only you can produce (although others may produce similar items). Works of art fit this definition better than anything else, but the formula will work for many items.

II. TAP AN EXISTING MARKET

There should be an existing market for the product (you can't afford to develop the market by yourself) and there must be a large number of potential buyers who desire the product and have the ability to pay cash for it. Of course it is axiomatic that you must sell your output in neighborhoods where these buyers normally shop (usually suburban communities).

III. BE COMPETITIVE

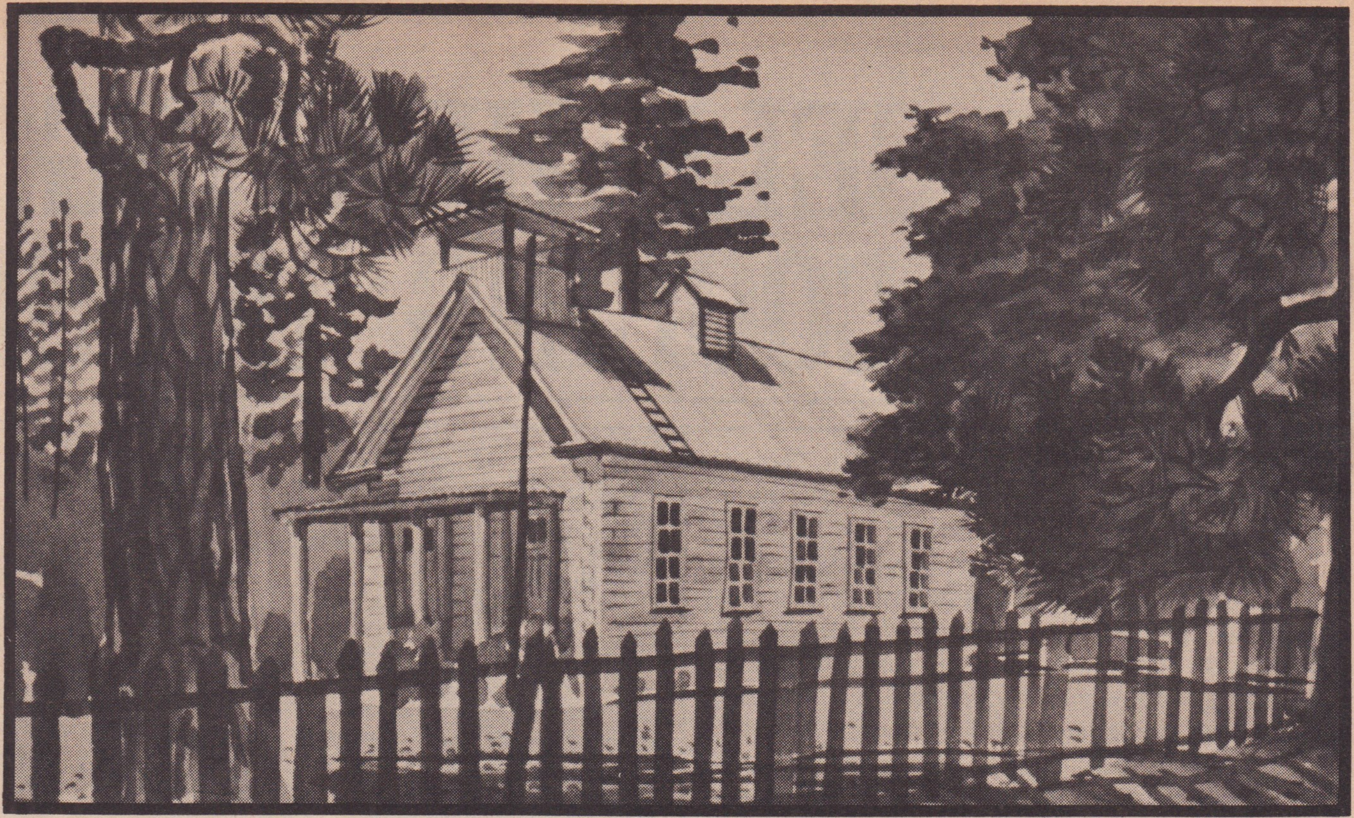
Your price must be competitive within the existing market.

IV. GIVE YOURSELF A LIVING WAGE

Your price must be sufficient to guarantee you a reasonable income for your time and cover your out-of-pocket expenses. If you cannot arrive at a price which satisfies both III and IV you are not going to make it.

V. PLAN YOUR SALE

Always call your event a "Sale" and always have a time limit. I have experimented with shorter and longer periods and I believe that Thursday through Monday is as long as one of these sales ought to be, while Friday through Sunday is as short as it should be. A short time period forces people to make up their minds, particularly if the date of the next sale is uncertain.



VI. PICK YOUR LOCATION

The location must be a busy and popular shopping center with plenty of parking so that people can combine other chores with a visit to your sale. What's more, at a shopping center, folks are liable to come in again and again whenever they go to the store (which can be often on a weekend in Suburbia!). Also, it's easy to tell people how to find you. I find I can usually get a store rent free or—at most—for a $3 or $4 light bill.

Promise to clean the place; in fact, most empty stores are pretty dirty and you can explain that you must clean the shop in order to use it. I also tell landlords that the store always finds a paying tenant when I come in, no matter how long it has remained vacant!

VII. KEEP IT A ONE-MAN SHOW

Never put on a joint show with other artists. If several of you want to cooperate, do it by helping each other put on one-man exhibits (which are much more effective). Customers are confused if you have more than one artist or too great a variety of products for sale. Keep things simple.

VIII. INVITE EVERYONE

Mail invitations to everyone you can think of. Make your invitation very informal and personal. Tell the folks what you do, why you're doing it, why you're having the sale. Tell them where to come, what days and what hours (and be sure to be there or have someone else there all the time . . . people who might have bought will go away angry if you don't think it's important enough to be there during the hours you advertised).

IX. GET THOSE NAMES AND ADDRESSES

Even if you decide not to have a drawing for a free item, be sure to give those who attend something to write their names and addresses on . . . and don't forget to ask them to pick their favorites! Serve coffee or tea or punch and your visitors will stay even longer.

X. USE SALES RECEIPTS AND PSYCHOLOGY

Give buyers a sales receipt and keep a copy for yourself (you can get these at a stationery store). When I sell a painting I usually ask if the buyer minds leaving it on display for the remainder of the show. Unless he's from out of town he usually agrees. This allows later visitors to see all of your work. It's also good sales psychology to have a few paintings with "sold" markings on them!

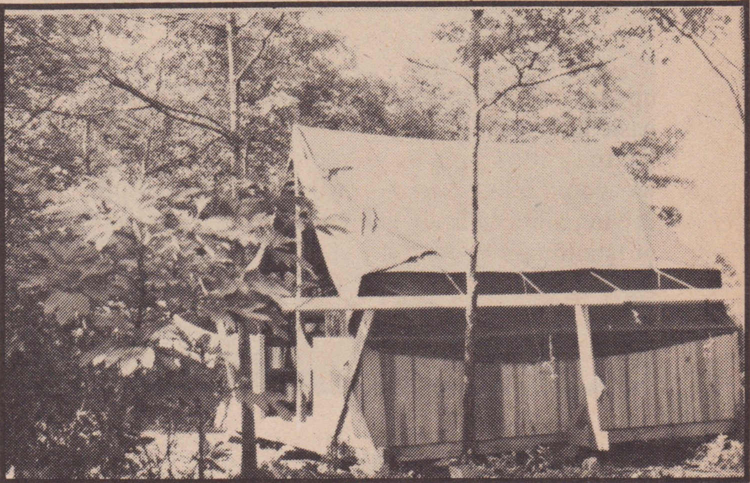
If you're a competent artist and follow the businesslike procedure I've just outlined, you should be able to sell your work at reasonable prices without paying fancy commissions or waiting months between sales. Stick entirely to cash deals and leave installment or charge purchases to your competitors. When your sale is over, pack up and move on. If you want to continue selling, move to another town or another part of the same town . . . but don't repeat in the same location for at least six months.

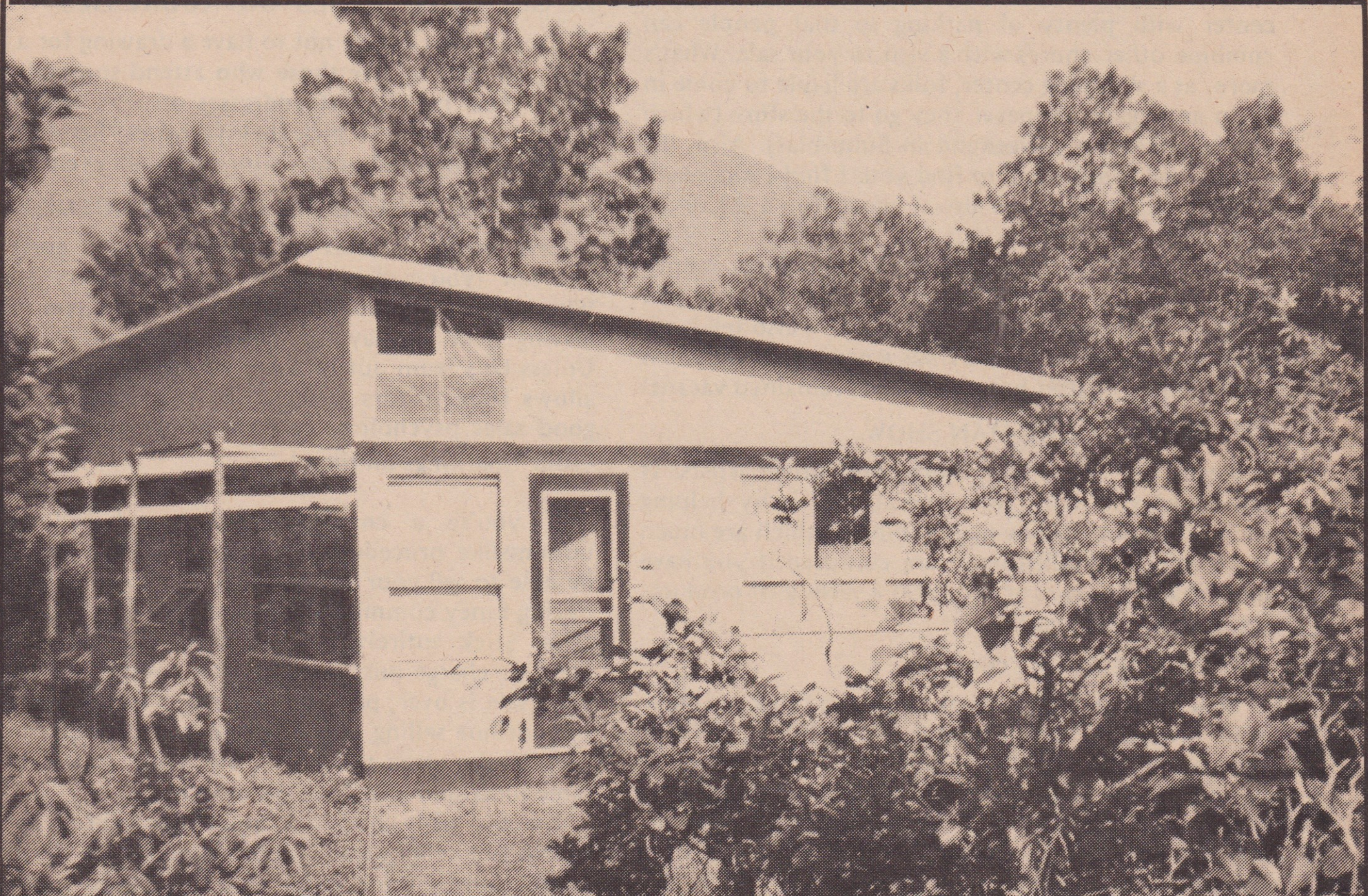
I would wish good luck to all who want to try this method of selling art . . . but if you follow the above instructions, I think you'll find—as I have—that most of the "luck" you need is already built-in.

WENDELL THOMAS:

THE SELF-HEATING, SELF-COOLING HOUSE

RIGHT: Over 20 years ago, Wendell Thomas designed and—with the help of his wife and a friend or two—built a house that was far ahead of its time. He did it all on very little and the Thomas family lived in this tent while their new home, Sunnycrest, was building. BELOW: A view of Sunnycrest from the east, showing its ceiling window and a framework on the south for two hardboard panel awnings. Note that the awnings were stacked one above the other to break the sun in July, August and September. After building Sunnycrest, Wendell went on to design and build an even more advanced house.





In 1948 my wife and I joined Celo Community, Inc., in the mountains of Western North Carolina and I chose a site—just off the top of a ridge, on the south side—for building a house. Our place was 100 feet above the highway and commanded a magnificent 7-mile southern view of the gap where the Blue Ridge and Black Mountains met. I had to climb a tree, however, to enjoy that view in the beginning! The Community sold me the acre I wanted for $100 and we lived in a small tent with a wooden platform and side walls while my talented Community friend, Phil Nordstrom, and I built the dwelling that I had designed and which we named "Sunnycrest."

I should say here that I am neither an architect nor a builder. I had been a university professor up North until I left to experience the world's basic kind of life and my wife had been a librarian. We took the Community plunge not knowing how we would make a living until my wife got a job driving a bookmobile, and eventually became an outstanding regional librarian. I worked on the place . . . and wrote.

Our 32' x 24' shed-roof dwelling was a moderately solar house. But its main feature was a slot between floor and wall—on all four sides—that drained cold air from the walls down to the deep, completely dry, sealed cellar. The living room was 32' long and 11' high at the front. The 3-way divided bathroom had wooden partitions and the two bedrooms could be enclosed with drapes.

We used the smallest Riteway heater in this house and our fuel was the wood we got from clearing. We spent not a cent on fuel. On the coldest winter mornings (temperature around zero) with no heat in the heater overnight, the temperature in the living space was about 50 degrees F. A fire built in the heater would raise the temperature to 70 within ten minutes and, at 9 in the morning, we would let the fire go out. The sun would then take over and keep the temperature of the house above 70.

I'm not presenting this house as a model. In fact, this article is really about another dwelling that I designed later and which I'll describe presently. But this first house gives me a chance to caution about the solar principle and to recommend the cold air drainage slot which, as far as I know, was my invention for dwellings.

I figured that the sun in our temperate zone shines about one-sixth of the time in the cold season: every other day, at a guess, and 8 hours out of the 24. So, unless you have elaborate arrangements for insulating the windows five-sixths of the time, you're losing heat—not gaining—with an "all glass"solar home design. It's enough to face a few large windows south and have an almost solid, well-insulated wall at the north and west (a western exposure is cold in winter and hot on summer afternoons). (A northern exposure is sunless and cold.)

The cold air drainage slot was suggested to me by the "cold air return" register of a hot air furnace system. My invention was to eliminate the registers and the voluminous, clumsy conduits leading to the furnace: and to raise the "furnace" (the small heater) to the living space. The floor should be laid to stop about 2 inches from the wall. You don't need a subfloor!

Cold air, of course, travels down the building's walls and goes down to the cellar without conduits if given a chance. At the same time, earth-heated air in the basement will be tending to rise and you may bring it up to your living space simply by boring holes in the floor near a central heater on the main level. The heater may burn wood, coal, oil, gas or electricity . . . but there warn't no electricity when we built this house!

You don't need a complete, deep cellar to make this idea work. You could have only a crawl space or part of a crawl space but the deeper and wider the under-area, the more heat you'll get from the earth. The main thing is to have no doors, windows or ventilators in the under-space. It should open only to the living area above.

At the opposite pole from the complete, deep cellar, I suggest the following: In a moderately solar house, use a dark-stained concrete slab for your foundation and floor, *well insulated from walls and ground.* Three-inch conduits should be laid at the cold corners and deliver it near a central heater.

In 1957 my father died and left me a small sum of money and, since our two adopted children were growing up, I decided to build another dwelling. The site I chose was a little to the southeast of the first house in a verdant gully. This gave me the idea of burying the new house (also 32' x 24') in the earth almost up to the roof on the north and west and up to the window sills on the south and east sides. We named it "Sunnycave."

When the 4'-deep crawl space for the house was dug, I solved the problem of earth-pressure on the north and west walls by leaving a strip of earth 6'-wide within those walls and by reinforcing the 8-inch cinder block masonry. When the house was finished, the earth around it (which we covered with honeysuckle) kept the dwelling warm in winter and cool in summer.

The house had no openings to the cold north but there was a block-sized ventilator at the west (near the ceiling, next to the north wall), with an air passage through the house to a companion ventilator in the east.

The west wall extended 4' beyond the south wall, to keep the winter's cold west wind off the south wall and windows. Near this extension was a sheltered doorway in the south wall. Another doorway was in the east wall. near the north. The south had three large and two smaller windows. The east had one large window, over the kitchen sink. There was door glass, and glass in the storm door.

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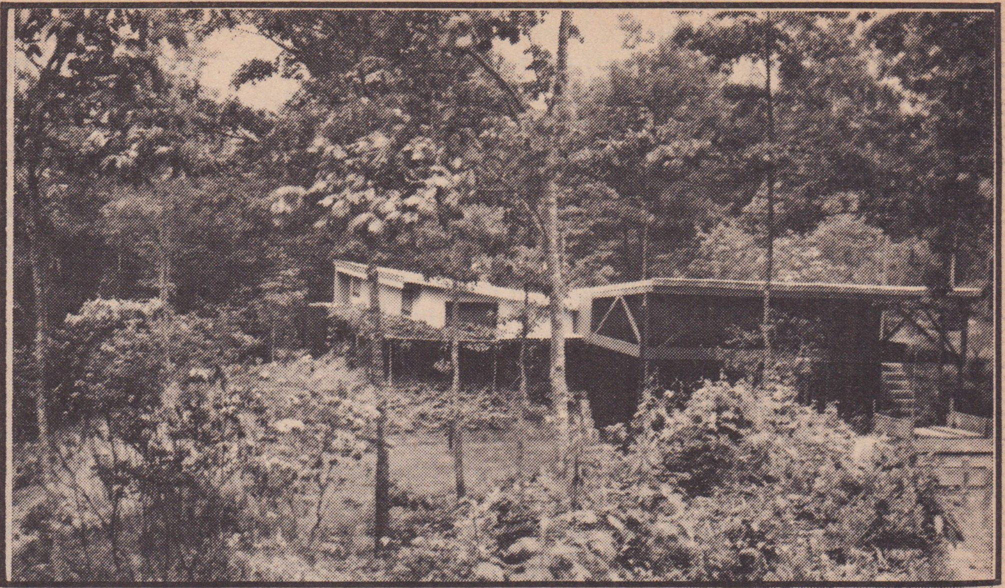
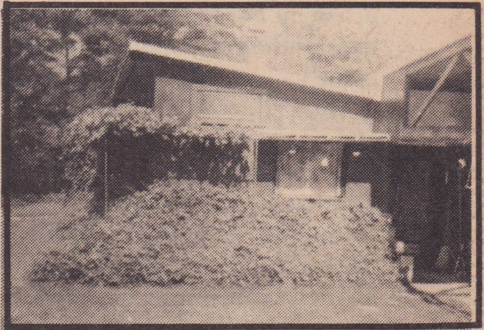
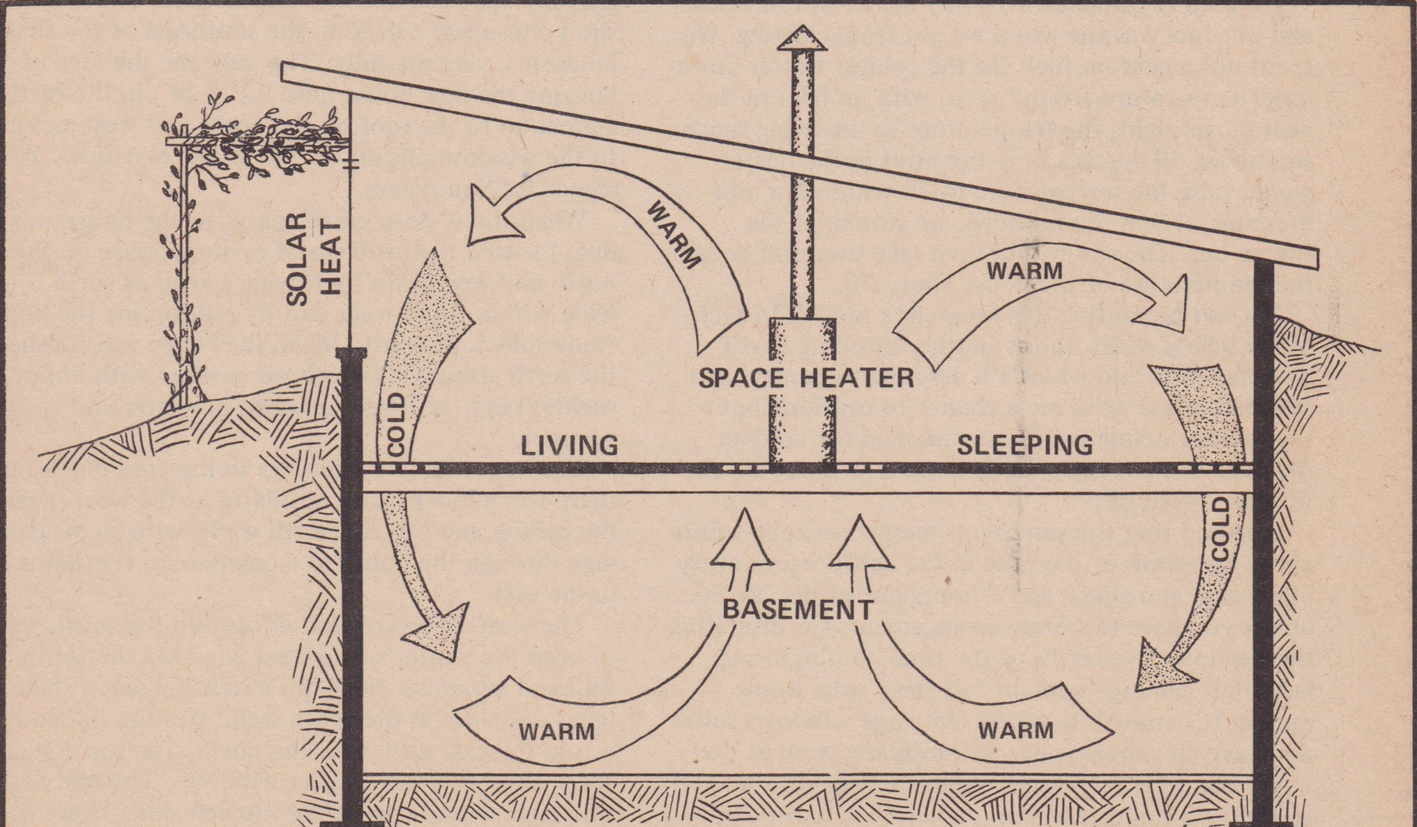


ABOVE LEFT: Phil Mayer's 1965 photo shows Wendell and friend at south entrance of Sunnycave, the second—and improved—self-heating, self-cooling house built by Thomas. ABOVE RIGHT: Sunnycave from the southeast. The temperature range in the house (with no artificial heat or cooling) is only 15° F from the coldest winter morning to the hottest summer afternoon. RIGHT: Closeup of the east side of Sunnycave shows the house entrance shielded by a built-on shed. Honeysuckle covers earth bank and grape vine shades south windows in summer. BELOW: Schematic shows airflow inside Sunnycave during winter.




SOLAR HEAT
WARM
COLD
SPACE HEATER
WARM
LIVING
SLEEPING
COLD
BASEMENT
WARM
WARM
GROUND HEAT
W. Clements

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The shed-type roof, with a pitch of 1 to 8, was supported by framing and insulated with conventional insulation. The roof sheathing was good 2" matching lumber on 4' centers of 6" unfinished rafters. The rafters rested on a 10" double beam running through the middle of the house from east to west. This beam rested on the walls and two posts. The ceiling was one-half inch sound-absorbent insulation board over conventional insulation.

The roof sheathing was covered with roofing felt which *should* have been painted with aluminum coating for reflective insulation. The roof itself was crimp aluminum. I think corrugated aluminum would have been better for both reflective insulation and hot air drainage in the summertime.

The masonry walls were waterproofed outside with 2 coats of ¼" cement plaster plus 2 coats of cement sealer. We insulated the living area walls inside simply by nailing on insulation boards with ordinary nails. We painted the boards Ripple Green.

The virtue of the shed-roof is to promote interior air circulation. The warm air goes up to the highest level, which is at the south. There were two transom windows—one at each end of the high south line—near the ceiling, to let the hot air out in warm weather. The two ventilators, the two doors and the two transom windows gave us plenty of ventilation.

The roof-overhang on the south side kept sunlight from the main windows in June and early July. But during the heat of late July, August and early September the sun was low enough to shine in. To prevent that, I constructed a three-foot wide frame above the windows on which wires were stretched parallel to the south wall. Grapevine and woodbine were easily trained to cover this trellis. Their leaves sheltered us from the sun's rays and the respiration of the leaves cooled the air. In the fall, when sunlight was welcome, the leaves dropped off.

The main windows were fixed and well insulated. The panes were all "double strength", one-eighth of an inch thick. I sealed the inside pane and left the outer one unsealed—like a storm window without a frame—by setting the glass against four little ½" blocks. Each block was nailed with one little nail and the pane of glass was fastened with another four nails. The air between the panes is non-humid outside air and does not fog.

I insulated the windows at night and on cold, dark days with heavy pull-drapes after covering the panes with aluminum-painted insulation boards. Two of the large windows were left uncovered, for light, and these special windows were three panes thick! It was nice, on a bitter cold day, to put your hand on the inside pane and feel it *warm*. The transom windows I fitted with extra panes, and even covered the greater part of the screens with glass in the cold season.

Sunnycave, like Sunnycrest, had cold air drainage slots which gave us a *no-draft floor.* When someone opened an outside door, the cold winter air drained down to the crawl-space through the register right by the door and did not scoot across the floor. No chilly feet in these dwellings! Children could play on the floor in comfort. You could put a pad on the floor and sleep there just as if you were sleeping on a bed.

Another virtue of the "no draft floor"—aside from saving heat, trouble and expense—is the way it (and the sloping ceiling) promotes internal circulation of air. Even with everything closed, the air in our houses never felt stuffy.

Still another point should be mentioned. In the ordinary house, the living space is too dry, especially when the house is heated. The floor cracks, furniture falls apart and your throat gets dry . . . while whatever is in the basement stays too damp and moldy. On the contrary, in our houses—where the air circulates up and down all the time—the living space is normally humid and the below space just slightly more humid.

In Sunnycrest, on the coldest winter morning, the temperature was 50 degrees; on the hottest summer afternoon, 85. In Sunnycave, on the coldest winter morning, the temperature was 60; on the hottest summer afternoon, 75. For that reason I prefer Sunnycave. Its temperature varies only 15 degrees throughout the year!

If I were to design Sunnycave again today, I would do it just as I did . . . except for one thing: I would not bring an earth-bank almost to the roof on the north and west sides (it's not necessary), but only to the window sill level. I think that an earth-bank up to window sill level, coupled with a no-draft floor, is fundamental. The main thing about the north and west is to have no doors and few or no windows in a heavily-insulated wall.

Since building Sunnycave, I've learned from Ken Kern that, "In 1935, Frank Lloyd Wright designed a community of low-cost 'Berm' houses. He made logical use of earth-insulation by back-filling to window sill level. This construction provided excellent insulation and saved on wall maintenance and finish. Unfortunately, the idea was too unorthodox for the public to accept at that time so the scheme was never carried to completion."

Since building Sunnycrest and Sunnycave, my children have grown up and moved away and my dear wife died suddenly of a stroke. I've now moved to South Carolina to live with my sister's family but each of my houses is currently being lived in and enjoyed by a young couple.

I now spend all my time writing about creative peace and this article contains most of what I know about earth-insulation and no-draft floors. If you have have questions to ask, please consult Ken Kern, Sierra Route, Oakhurst, California 93644. Ken is an earth-loving architect and builder, author of THE OWNER-BUILT HOME and THE OWNER-BUILT HOMESTEAD and he is a recognized authority on low-cost and innovative building.

how to PRESERVE PRODUCE without refrigeration

FRANK GARRETT

Believe it or not, it *is* possible to live without refrigeration. Long before the advent of home coolers and freezers, the problems of food storage and preservation had been solved . . . but this invaluable knowledge has been largely forgotten by our modern "quick and easy" society.

Yes, it certainly is both fast and easy to cram an armload of frozen supermarket food into the freezer or refrigerator. It's become so natural to do exactly that, in fact, that we now often completely overlook the home refrigeration unit's definite limitations.

For instance, it's impossible to store a year's supply of food in a refrigerator or freezer. If you raise all or most of what your family eats, then, refrigeration is definitely not a practical means of preservation.

And did you realize that food frozen or refrigerated for longer than three months loses both its flavor and appearance . . . *and* the greater portion of its nutritional value? Some edibles become positively revolting when frozen overlong.

Consider, also, what happens to a big freezer of frozen food during a major, lengthy power failure (and more of those are predicted during the coming decade). It only takes about two days without electricity to turn a marvelous store of frozen victuals into a sodden, rotting mess.

There's a money angle to consider too. Operating expenses for a home refrigerating unit are nominal—probably not more than a couple of dollars a month—but that is still bread you could use elsewhere (like for a subscription to MOTHER). And think of all the nice, useful things you could buy with the money you'd get if you sold your refrigerator or freezer. Or—if the unit is too old or useless to sell—you can still make money with it by turning it on its back, filling it with dirt and table scraps and sprinkling in a handful of fat earthworms. Within a year, you'll be able to sell livestock from this worm farm to all the fishermen and organic gardeners in your neighborhood!

Well, chances are you won't want to take that drastic a step . . . but if you've read this far, I assume that you are seriously interested in learning to can and preserve food without refrigeration. Your mother may have done it, your mother's mother probably did and your mother's mother's mother most certainly fed a family without benefit of the electric refrigerator. If great-grandma did it, you can too. It's basic as breathing and, after awhile, you'll begin to look forward to the fun each year!

THREE MAJOR METHODS

Meat and dairy products are another story altogether and will not be covered in this article but fruits and vegetables can be preserved at home without refrigeration by three methods: storage, drying and canning.

Simple storage is, by far, the oldest method of preserving food. It's also the easiest. Perishables to be kept by this process are merely placed in a cool, dry environment such as a cellar or specially-constructed hole in the ground. Only a limited number of fruits and vegetables can be preserved in this fashion, however, and only for a limited period of time.

Drying is another easy and quite old (dried foods have been found in human settlements dating back to 4,000 B.C.) method of keeping produce. In this process, spoilage is prevented by removing most of the food's natural water. Many edibles can be dried . . . but just as many cannot.

In 1809, the French government presented an award to Nicolar Appert for his discovery of the modern canning process. This is the most versatile of all food preservation methods. It consists of the destruction by heat of the micro-organisms which normally cause food to decay and the prevention of their re-entry into the food by an air-tight seal. Naturally, foods of varying composition must be processed differently but the principle is still the same.

Above all else, canning preserves nutritional value. Except for the initial loss by heat degradation (which occurs with all cooked foods), all the vitamins, minerals, trace elements and delicious flavor of the fresh produce are sealed right inside the can for an indefinite storage period. Ole Nick Appert really came up with something!

SIMPLE STORAGE: In The Garden

The simplest storage of all, I guess, is no storage at all. Jerusalem artichokes, for example, are very poor indoor keepers but they may be left in the ground indefinitely after first frost and dug throughout the winter as needed. Other crops—such as kale, collards, parsnips, salsify, leeks and Brussel sprouts—also withstand cold weather readily and can be left in the ground right through the winter in all but the most severe climates. Freezing actually improves the flavor of parsnips, salsify and kale but a protective mulch of two inches of straw is usually laid down over crops left in the garden in this manner.

SIMPLE STORAGE: Root Cellar

Most root crops and a few fruits can be stored indoors in a deep cellar or in a specially constructed root cellar (some for a year or longer). The important thing to remember is to keep the produce *dry* and *cool* (between 50° F and 55° F). ***EDITOR'S NOTE: General recommendations for a root cellar call for higher humidity (around 80%) and lower temperatures (around 34° F) for the storage of most produce. See NOTE at bottom of Figure 1 for further details.***

Vegetables which can be kept in a cellar include all types of potatoes, sweet potatoes, yams, beets, turnips, parsnips, horseradish, radishes, rutabagas, salsify, carrots, leeks, onions, kohlrabi . . . and almost any other root crop you can think of.

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FIGURE 1. GUIDE TO SIMPLE STORAGE OF PRODUCE

FRUIT or VEGETABLE	STORAGE GUIDE	APPROXIMATE STORABLE TIME
Beans: String, Green Snap, Wax, Lima	Spread on shelves or benches	2-4 weeks
Beets: All types	Store in bins, boxes, or baskets	9-12 months
Broccoli	Store one layer deep on shelves or benches	2-3 months
Brussels Sprouts	Store two layers deep on shelves or benches	3-6 months
Cabbage: Green, Red, Chinese	Store in bins, boxes, or baskets	6-9 months
Carrots: All types	Store in bins, boxes, or baskets	9-12 months
Cauliflower	Store one layer deep on shelves or benches	3-4 months
Cucumbers: All types	Store two layers deep on shelves or benches	1-2 months
Corn: All types	Store in husks one layer deep on shelves or benches	1-2 weeks
Celery	Store one layer deep on shelves or benches	1-2 weeks
Eggplant	Store one layer deep on shelves or benches	1-2 weeks
Kohlrabi	Tie tops together in manageable bunches and hang	9-12 months
Leek	Tie tops together in manageable bunches and hang	9-12 months
Okra	Store two layers deep on shelves or benches	2-4 weeks
Onions: All types	Tie tops together in manageable bunches and hang	9-12 months
Parsnips	Store in bins, baskets or boxes	9-12 months
Potatoes: All types	Store in bins, boxes, or baskets	9-12 months
Peas: All types	Spread unshelled on shelves or benches	2-4 weeks
Peppers: Green, Bell, Red Cherry, Banana, Tabasco	Store one layer deep on shelves or benches	1-2 weeks
Salsify	Store in bins, boxes, or baskets	9-12 months
Sweet potatoes and Yams	Store in bins, boxes, or baskets	9-12 months
Squash-Summer: Straight neck, Crook neck, Cymling, Patty Pan, Zucchini, Cocozelle, Chayote	Store one layer deep on shelves or benches	2-4 weeks
Squash-Winter: Hubbard, Acorn, Butternut, Banana, Buttercup, Turban	Store in bins, boxes or baskets	6-9 months
Tomatoes (ripe): All types	Store one layer deep on shelves or benches	1-2 weeks
Tomatoes (green): All types	Store two layers deep on shelves or benches	1-3 months
Turnips: Rutabaga (yellow), White	Store in bins, boxes, or baskets	9-12 months
Apples: All types	Store in bins or boxes	9-12 months
Figs: All types	Store one layer deep on shelves or benches	3-4 weeks
Cranberries	Store three layers deep on shelves or benches	1-2 months
Melons (thin rind): Cantaloupe, Honeydew, Honeyball, Persian	Store one layer deep on shelves or benches	2-4 weeks
Melons (thick rind): Casaba, Christmas Water, Spanish	Store one layer deep on shelves or benches	1-3 months
Pears: All types	Store one layer deep on shelves or benches	3-4 weeks
Quince	Store two layers deep on shelves or benches	3-6 months

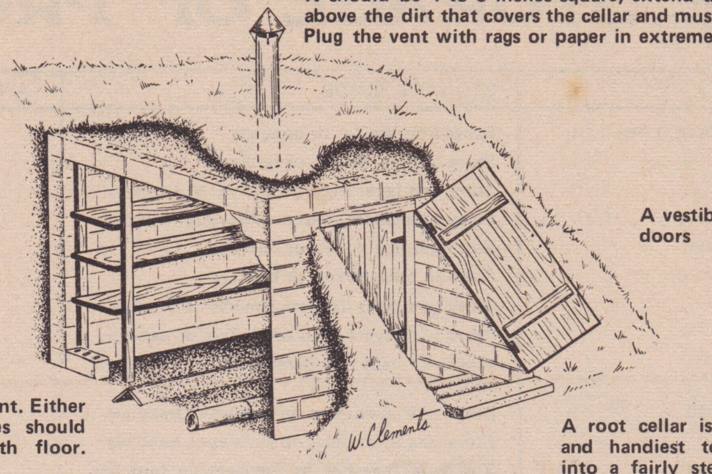
NOTE: It should be noted that the above-quoted storage times are, with only a few exceptions, generally better than average. Apparently Mr. Garrett knows exactly what he's doing, has a near-ideal root cellar and gets a little help from the temperate climate he enjoys in south-central Virginia.

It should also be noted that, whereas Mr. Garrett specifies a cellar temperature of 50° F to 55° F and low humidity for everything, most other guides recommend temperatures of 50° F to 60° F and low humidity only for things like pumpkins, squash and sweet potatoes. Humidities of 80% and temperatures of 30° F to 34° F are usually specified as ideal for storage of cabbage, celery and all root crops . . . but Mr. Garrett seems to get excellent results with his methods and he tells us he's been doing it this way for years so he must be doing something right!

NOTE: An excellent inexpensive source of diagrams and information on root cellars is *Storing Vegetables and Fruits in Basements, Cellars, Outbuildings and Pits.* It costs only 15¢ from:

SUPERINTENDENT OF DOCUMENTS
U.S. Government Printing Office
Washington, D.C. 20402

FIGURE 2. how to build a root cellar



A root cellar needs to breath and a ventilator is necessary. It should be 4 to 6 inches square, extend three to four feet above the dirt that covers the cellar and must have a rain cap. Plug the vent with rags or paper in extremely cold weather.

Three or more feet of dirt on roof.

Peeled log or wooden walls can be used (put a sheet of plastic film between the walls and the earth) but concrete or cement block will last a lot longer.

A vestibule entrance with two doors insulates the front.

Good drainage is important. Either wooden flumes or tiles should be buried in the earth floor.

A root cellar is easiest to build and handiest to use when dug into a fairly steep bank as near to the kitchen door as possible.

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Select vegetables which are firm and sound. Remove excess clinging dirt, but *do not wash the produce!* Place the vegetables *carefully* in boxes or bins. If you toss the produce around and bruise it, you may well find it rotted the first time you go down into your cellar for a nice bunch of turnips.

Storage bins or boxes should be constructed so that air can circulate around the vegetables. This can be easily accomplished by leaving spaces between the wooden slats when the containers are constructed. Wire baskets may also be used as storage containers.

If you have neither wooden boxes nor wire baskets, you'll find that root vegetables store quite satisfactorily stacked on large, flat boards . . . as long as they're kept dry and cool. Bulbous root vegetables, such as onions, will keep much longer if tied by their tops into a bunch and hung up in the cellar.

Winter squash, cabbage, broccoli, celery, Brussel sprouts, cauliflower, apples, melons and quince are other vegetables and fruits that will keep in a root cellar but they are considerably more delicate than root vegetables and should be handled accordingly. Of this group, only cabbage and winter squash can be safely stacked in bins. The other vegetables may *not* be stacked. Of the fruits, only apples may be stacked . . . and, of the apples, only select *hard* apples free of blemish should be stored. Just one apple with a soft spot on it can cause total disaster in your apple barrel.

Green beans, lima beans, peas, okra, cucumbers, eggplant, peppers, summer squash, green tomatoes and most fruit will remain good for up to one month in a root cellar. Spread them on shelves or benches and you'll find their quality actually improves as they slowly come to full ripeness in the cellar . . . but use this produce quickly as it will deteriorate rapidly.

If you've never tried root cellar storage before, Figure 1 should help get you off to a good start.

DRYING

Many fruits and vegetables which cannot be stored may be readily preserved by drying. When the method can be used, drying is one of the most effective means of food preservation because dried foods can be held indefinitely as long as they are *kept* dry.

The range of edibles which may be dried includes tuberous and bulbous root vegetables, pod beans, shelled beans, cereal and bread grains, celery, herbs, peas, peppers and fruits with high sugar and low moisture content. Drying is no more difficult than simple storage but it does involve more work. The end result, however, is well worth the extra effort.

For this method of preservation, food is first properly prepared (either mashed into a pulp, cut into small pieces or strung on a string) and then dried in one of three ways.

Apricots, peaches, wild persimmons and other like fruits can be preserved as "leather" by mashing the fruit into a pulp, spreading it in a quarter-inch thick layer across almost any flat, clean surface and letting it air and sun dry (see PERSIMMONS! by Victor A. Croley in MOTHER NO. 5).

Many fruits and some vegetables may be chopped, cubed or cut in half and spread one layer deep on screening or cheesecloth stretched over a frame made of wooden splints. Cover with additional screening or cheesecloth and place in the sun until dry (actually any warm, dry place will do the job as well as the sun . . . but the process may take a few days longer). Occasional stirring or turning will speed the operation considerably.

Finally, some produce—whole or chopped—may be strung on strings and hung up to dry . . . either inside or out in the sun (see THOSE OLD-TIMEY FOODS by Victor A. Croley and Grace V. Schillinger in MOTHER NO. 6).

Dried foods retain more nutritional value than foods preserved for long-term storage by any other natural method. The technique is a good one for making produce available during off-seasons.

One point though: fruits and vegetables which have been dried *must* be kept dry or they will deteriorate rapidly. Dried fruits are best stored when packed into air-tight containers such as jars, cans or crocks. Sprinkle each layer with sugar and add another layer until the container is full. I've kept fruit this way for as long as six years without spoilage. Vegetables should merely be placed in air-tight containers after drying.

Figure 3 will assit you in preparing and drying produce.

CANNING

Home canning is not difficult but, to insure success, every step of the operation must be carried out correctly at the proper time. The home canner must be able to distinguish between various processing methods and must know which procedure to use with a particular food. The beginner will find it easiest to begin with fruit and work into vegetables after a little experience is gained.

If you attempt to do any large-scale canning in your kitchen on an electric or gas range, you'll find a conspicuous lack of available space and your fuel bill skyrocketing to altitudes once believed unattainable.

I prefer to do my canning outdoors over a fire built under a grill. Even an open fire kindled under a pot set upon three large rocks is vastly superior to an overcrowded stove. Elbow room is unlimited (you can even set up a work table), the heat doesn't stifle you or make your house unliveable . . . and it's nice to be outdoors.

A minor drawback of an outdoor canning operation (especially if you live away from heavily-populated areas in my neck of the woods) may be a visit from the friendly, neighborhood Federal Law Enforcement Agent from the Alcohol and Tobacco Tax Division of the Internal Revenue Service. He may come alone and empty-handed . . . or armed with a warrant and a team of Federal Marshals. Regardless of how he arrives—unless you have a still hidden somewhere—show him around and be pleasant. He's just doing his job so don't hassle the poor guy. If you're nice he'll probably never come back, but if you give him a hard time he can make your life very unpleasant. Keep cool.

If you can't can outdoors, you can still do quite a satisfactory job in your kitchen *if* you make optimum use of the available space. As for those higher fuel bills: in the long run, they'll be more than compensated for by the quality and quantity of your home-canned food.

The following list of tools is rather basic for anyone who

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FIGURE 3. GUIDE TO DRYING FRUITS AND VEGETABLES

FRUIT or VEGETABLE	PREPARATION FOR DRYING and DRYING METHOD
Beans (pod): String, Green, Snap, Wax	Wash and dry, cut or break off ends and pull strings, cut or break into one inch pieces, spread on frames or string on heavy thread, dry.
Beans (shelled): Lima, Pinto, Great Northern, Black, Soy, Kidney, Lentils, Pea (navy), Cranberry, Blackeyed peas, Cowpeas	Shell, grade if desired, spread on frames, stir daily until completely dry.
Peas: All types	Prepare and dry as for beans.
Cereal and bread grains: Barley, Corn, Oats, Rye, Buckwheat, Wheat, Rice	Spread on frames, stir daily until completely dry. Allow corn to stand on the stalks until fully mature, pick and husk, leave on cobs until grains are hard, strip from cob.
Herbaceous plants	If the plants have thick, juicy stems such as celery or rhubarb, slice thinly and spread on frames or string on heavy thread. Dry all other herbs whole, crumble when dry and separate large stems from leaves, store in air-tight containers.
Peppers: Bell, Green, Red, Cherry, Banana, Tabasco	Small peppers (Tabasco, Red) may be dried whole. Slice others in rings and spread on frames or string on heavy thread.
Tuberous root vegetables: Beets, Carrots, Parsnips, Potatoes, Salsify, Sweet potatoes, Yams, Turnips, Rutabaga	Peel or scrape skins, slice thinly and spread on frames, or cube and string on heavy thread. NOTE: When these vegetables dry, they may change color due to oxidation, but the color change will in no way harm the flavor.
Bulbous root vegetables: Onions, Leek, Kohlrabi	Peel and slice into thin rings (no more than 1/8th inch thick), spread on frames or string on heavy thread.
Apples: All types	Wash, peel, slice into rings (no need to core), spread on frames or string on heavy thread. NOTE: Apples turn brown when dried due to oxidation, but the color change does not affect the flavor.
Apricots: All types	Wash, cut in half and remove pit, spread skin side down on frames until dry. DO NOT TURN.
Berries: Blackberries, Blueberries, Loganberries, Gooseberries, Huckleberries, Raspberries (black, red) Strawberries, Serviceberries, Mulberries, Juneberries, Shadberries, etc.	Wash, spread on frames until dry.
Cherries: All types	Wash, spread on frames until dry.
Currants: All types Figs: All types Grapes: All types	Pull from bunches (grapes), wash, spread on frames until dry.
Peaches: All types Pears: All types	Wash, halve or quarter if fruit is large, remove pit (peaches), spread skin side down on frames until dry. DO NOT TURN.
Persimmons	Ripe, gooey fruit with broken skins should be run through a food mill to remove the skins and seed. Spread the pulp into a shallow pan, cover with cheese cloth or screening and place in the sun until dry. Firmer fruit with unbroken skins should be spread on frames until dry and packed into jars.
Plums: All types	Most plums do not dry well; the prune plum is best. Wash and spread on frames until dry.
Quince	Wash, slice into thin rings, spread on frames or string on heavy thread.

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plans to do much canning. Try not to make any major substitutions.

1 Small, sharp paring knife
1 Large, galvanized wash tub or garbage can
1 Large pot of any shape, cover optional
1 Large, flat-bottomed pot with cover
1 Large pressure cooker
1 Food mill
1 Large lot of containers (glass jars or tin cans) with tops

Now don't rush out and buy all this stuff in one place at one time or you'll spend a fortune. Hardware stores, discount houses, junk stores, surplus stores, household auctions, Goodwill stores and Salvation Army outlets are all excellent sources for these items and—with a little scouting—you can often get exactly what you need for almost nothing.

The items themselves are nearly self-explanatory.

A small, sharp paring knife saves literally hours of time when you're cleaning and cutting foods for canning. The large pot is for food preparation prior to canning and its shape is not important as long as the pot is large enough. I consider two gallons an absolute minimum size for this item. The cover is optional but worth having because it greatly speeds boiling and cooking.

The flat-bottomed pot is used for processing the canned food and—to accomodate the greatest number of jars or cans—should be as large as possible. A cover is essential for this container since canned food must be covered during processing.

The pressure cooker is not absolutely mandatory for home canning . . . but if you don't have one, you'll find that some produce requires a processing time of four hours (the cooker will cut that to about 20 minutes and give you a greater degree of safety to boot). Your pressure cooker should hold at least five one-quart containers of food and the larger the cooker's capacity, the faster your canning will go.

A food mill is essentially a pot with hundreds of holes punched in its bottom. A crank handle with a screw-type paddle attached rises vertically from the center of the pot. Foods which are soft or have been cooked mushy can be placed in the mill and forced through the holes in its bottom by turning the handle in the proper direction. In this manner, fruit and vegetable pulp can be separated from seeds and skins without peeling, paring, coring or pitting. Many hours can be saved by processing cooked apples, pears, cherries, grapes, potatoes, summer squash, sweet potatoes, yams and pumpkins with this ingenious device.

Countless long and heated arguments have raged over the containers used for home canning and the two most popular at present are tin cans and glass jars. I prefer glass over tin because glass jars are easy to use, do not require the added expense of a crimper and both the jar tops (if you get the right kind) and jars can be reused indefinitely . . . whereas tin cans can be recycled only about a half dozen times and their lids just once. If you want to become a tin freak, however, that's entirely your business.

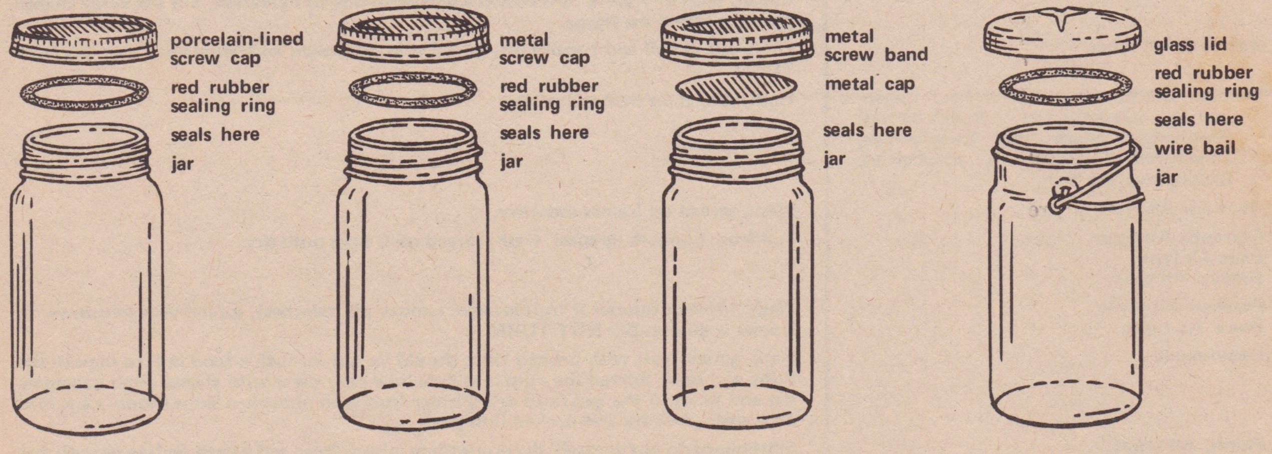
Tin cans commonly used are Nos. 2, 303, 4, 6 and 10 . . . containing 1, 5, 2, 4, 6 and 16 cups respectively. Plain tinned cans are quite adequate for most foods but, for others, you'll need a crimper with which to remove the remains of the previous can top, flare the edge of the can and seal on a new top.

Common sizes for glass jars are pint, quart, half gallon and gallon and the standard mouth size is 2-1/2 inches. Other jars are available but I've found that it avoids confusion to use only standard sizes.

Tin cans have one obvious advantage: they never break when dropped. On the other hand, everything canned in tins must be clearly labeled whereas the contents of glass jars are readily visible from the outside. By the way, nothing cheers me more than a pantry laden with jars whose colorful contents sparkle through glass skins.

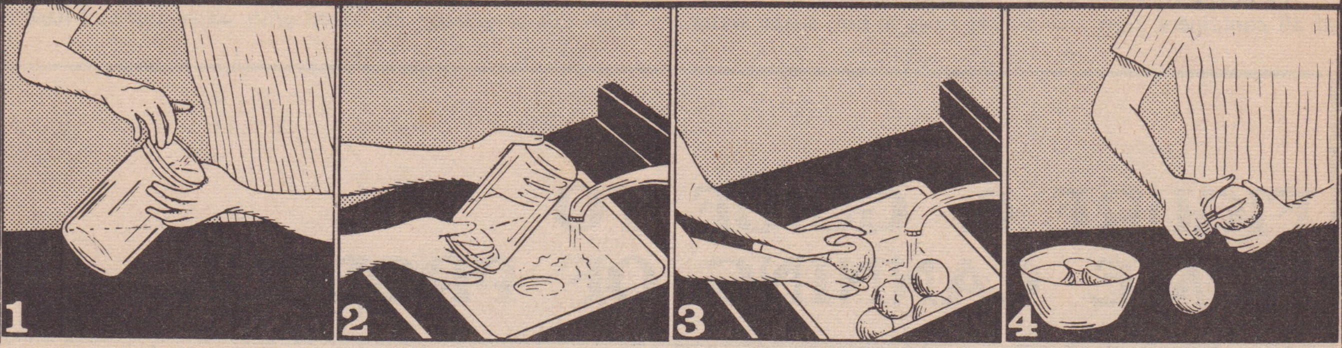
The use of tin cans for home canning also presents a small problem of availability. Although plain cans may be found in great numbers at the local dump, enameled tins are generally as scarce as the proverbial hen's teeth. They're also expensive to buy and, since can tops are not reuseable, new lids must be purchased for even scavenged plain cans. Glass jars, however, are available by the millions in trash cans and garbage dumps

FIGURE 4. types of glass jar closures

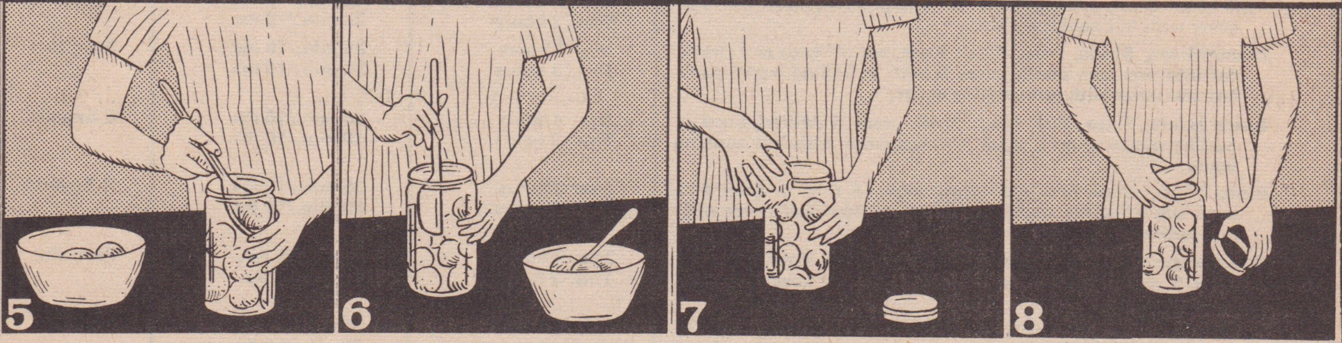


PORCELAIN CAP METAL CAP SELF-SEALING CAP CLAMP-TYPE

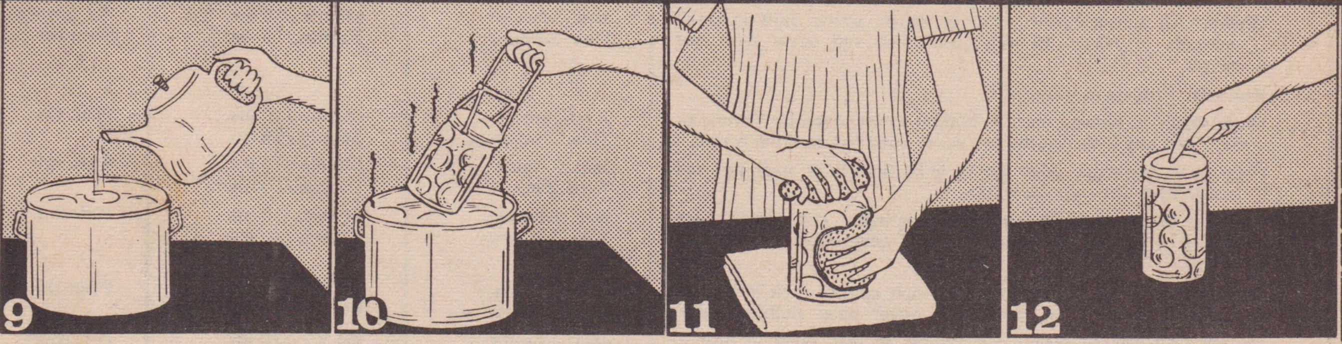
FIGURE 5. how to can. . .step by step



[1] Check jars for nicks, cracks and sharp edges. Check cans for corrosion and cracks in tin plating. Discard any defective containers. Use new lids and—for jars—good rubber seals. [2] Wash containers, covers and seals in hot, soapy water. Scald and leave in hot water until ready to use. [3] Select firm, fresh—but not overripe—produce. [4] Prepare fruits and vegetables according to appropriate hot-pack or cold-pack recipe.



[5] Pack food into jars or cans, leaving proper head space. Add liquid as called for in recipe. [6] Release air bubbles by running knife or spatula around inside of container. [7] Wipe top of jar and threads free of all pulp, seeds, grease, etc. [8] Place scalded lid on jar or can. Seal tin cans and tighten self-sealing jar tops as firmly as possible by hand. Do not use a wrench. Tighten screw-on caps firmly and back off one-quarter turn.



[9] Process containers in hot water bath or pressure cooker. Follow instructions of manufacturer. [10] Remove containers after processing required length of time. Set jars upright on folded towels. [11] Immediately tighten screw-on caps final quarter-turn. Other closures should already be tight. [12] Cool containers for 12 hours. Remove bands from self-sealing caps. Test seal by pressing cap. If top stays down, seal is good. Store.

all over this wasteful country and I have no qualms about collecting as many as I need.

Three types of tops are now generally used on glass canning jars and two of the three are reuseable. The best jar top is the one lined with porcelain and a second good closure is made of metal and electroplated with brass. Both of these tops may be recycled (the one lined with porcelain forever and ever) when properly sealed with rubber rings. I advise against use of the third top, which comes in two parts: cap and ring. The cap is flat and has a groove around the edge filled with rubber. The ring is threaded to fit the top of the jar and looks like a regular jar top with the center cut out. The ring is useable but the cap is not since you must bend it to pry it off.

There is one other type of canning jar with what is known as a clamp lid. I can't describe the appearance of this one because it's indescribable . . . but if you have one you'll know what I'm talking about. I know of no place that this type of jar can still be purchased, but if you can get them they're great!

Once you've found or bought your glass jars and reuseable tops, you'll only have to replace the sealing rings from time to time. These are the little rings of red rubber which fit between jar and lid to insure an air-tight seal (commercial canning companies use pieces of waxed cardboard for this job . . . but the cardboard wears out quickly and makes the food taste funny so invest 2¢ and buy rubber rings).

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After you've collected your basic home canning equipment, the next logical step is to begin canning everything in sight . . . *always bearing in mind that there are no safe shortcuts in canning.*

The logical first step of the canning process is the washing of all containers, tops and sealing rings in hot, soapy water. Inspect tin cans for hair-line corrosion, check all jars for cracks or chips and *discard* any damaged containers. This is extremely important because defective jars or cans may explode during processing or the food they contain may spoil later.

Place all containers and tops (including sealing rings) into a wash tub or garbage can filled with water and boil hard for

FIGURE 6. GUIDE TO HOME CANNING OF PRODUCE

FRUIT or VEGETABLE and PREPARATION GUIDE	HOT WATER* PROCESSING TIME	PRESSURE** PROCESSING TIME	TYPE of TIN CAN
Asparagus: Wash, cook 5 min. in boiling water, pack hot and cover with hot cooking water.	Jars: 3 hours Tins: 3 hours	30 min./10 lbs. 20 min./10 lbs.	Plain tin
Beans (Green, String, Snap, Wax): Wash, cut off ends and string, cut into one inch pieces, cook 5 min. in boiling water, pack hot and cover with hot cooking water.	Jars: 3 hours Tins: 3 hours	25 min./10 lbs. 30 min./10 lbs.	Plain tin
Beans (Lima, Pinto, Soy, etc.): Shell, grade if desired, cook in boiling water 10 min., pack hot and cover with hot cooking water.	Jars: 3 hours Tins: 3 hours	50 min./10 lbs. 40 min./10 lbs.	C Enamel
Beets: Wash, retain one inch stem, cook 15 min. or until skin slips, slip off skins, pack hot whole or sliced and cover with hot cooking water.	Jars: 3 hours Tins: 3 hours	35 min./10 lbs. 30 min./10 lbs.	R Enamel
Brussels sprouts or Cabbage (All types): Wash, shred cabbage, cook 5 min. in boiling water, pack hot and cover with hot cooking water.	Jars: 2 hours Tins: 2 hours	15 min./5 lbs. 20 min./5 lbs.	Plain tin
Carrots: Wash, scrape, leave whole or slice as desired, cook in boiling water 10 min. pack hot and cover with hot cooking water.	Jars: 2 hours Tins: 2 hours	30 min./10 lbs. 30 min./10 lbs.	Plain tin
Corn: Remove husks, cut kernels from cob, cook 5 min. in boiling water, pack hot and cover with hot cooking water.	Jars: 3 hours Tins: 3 hours	85 min./10 lbs. 60 min./10 lbs.	No. 2 only C Enamel
Greens (All types): Wash, remove tough stems, boil in small amount of water 15 min., pack hot and cover with hot water.	Jars: 3 hours Tins: 3 hours	90 min./10 lbs. 75 min./10 lbs.	No. 2 only Plain tin
Kohlrabi: Process as cabbage.			
Okra: Wash, cook one min. in boiling water, pack hot whole or cut into one inch lengths and cover with hot cooking water.	Jars: 2 hours Tins: 2 hours	40 min./10 lbs. 35 min./10 lbs.	Plain tin
Peas: Shell and wash, cook 5 min. in boiling water, pack hot and cover with hot cooking water.	Jars: 3 hours Tins: 3 hours	40 min./10 lbs. 35 min./10 lbs.	Plain tin
Parsnips: Wash, cook 15 min. in boiling water, cut into 1/2 inch cubes or slice thinly, pack hot and cover with hot cooking water.	Jars: 2 hours Tins: 2 hours	40 min./10 lbs. 40 min./10 lbs.	Plain tin
Potatoes: Wash, peel, cut into 1/2 inch cubes, cook in boiling water 2 min. drain, pack and cover with boiling water.	Jars: 3 hours Tins: 3 hours	40 min./10 lbs. 40 min./10 lbs.	Plain tin
Squash (All types): Wash, peel winter squash, cook in boiling water until tender, pack hot and cover with hot cooking water.	Jars: 3 hours Tins: 3 hours	90 min./10 lbs. 75 min./10 lbs.	R Enamel
Sweet potatoes and Yams: Wash, cook in boiling water until skins slip, peel, cut into 2 inch cubes, pack hot and cover with medium or thick syrup boiling hot.	Jars: 3 hours Tins: 3 hours	90 min./10 lbs. 90 min./10 lbs.	Plain tin
Tomatoes (All types): Wash, blanch and peel, pack cold and cover with hot water or cook one minute in boiling water and pack hot covering with hot cooking water.	Cold-pack Jars: 45 min. Tins: 35 min. Hot-pack Jars: 5 min. Tins: 5 min.	10 min./5 lbs. 10 min./5 lbs.	R Enamel
Turnips (Rutabaga, White): Process as parsnips.			
Apples (All types): Wash, blanch and peel or pack unpeeled, cold-pack and cover with THIN syrup, or bake or boil whole, sliced, or cubed, or slice and fry, pack hot and cover with hot water from cooking or hot syrup (THIN).	Cold-pack Jars: 20 min. Tins: 15 min. Hot-pack Jars: 5 min. Tins: 5 min.	10 min./5 lbs. 5 min./5 lbs.	Plain tin
Apricots (All types): Wash, pack whole, or blanch and peel, pack cold and cover with MEDIUM syrup.	Jars: 25 min. Tins: 25 min.	10 min./5 lbs. 10 min./5 lbs.	Plain tin

five minutes to sterilize. Keep all components in the hot water until you're ready to use them.

While the containers are being sterilized, prepare your food for canning. This may involve anything from simple washing to cooking and processing with a food mill, depending on what is being canned and the personal preferences of your family. If your particular tribe likes applesauce, for instance, can plenty of applesauce by all means. But if your three-year-old son detests applesauce, why not can sliced apples, whole apples, apple jelly and apple butter instead?

There are a few simple shortcuts which will considerably speed your preparation of food for canning. For instance, whole fruits and vegetables which have not been peeled may

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Berries (All types *except* Strawberries): Wash, pack cold and cover with MEDIUM syrup, or cook 10 min. in boiling water and pack hot, cover with hot cooking water or hot syrup (MEDIUM).	Cold-pack Jars: 20 min. Tins: 15 min. Hot-pack Jars: 5 min. Tins: 5 min.	8 min./5 lbs. 8 min./5 lbs.	R Enamel
Cherries (All types): Wash and stem, cold pack, cover sweet cherries with MEDIUM syrup and sour cherries with THICK syrup, or cook 15 min. in boiling water and pack hot, cover with hot cooking water or hot syrup. Cherries may be pitted or not as desired before processing.	Cold-pack Jars: 25 min. Tins: 20 min. Hot-pack Jars: 5 min. Tins: 5 min.	10 min./5 lbs. 10 min./5 lbs.	R Enamel
Currants and Grapes (All types): Wash and stem, cook in boiling water until skins pop, pack hot and cover with hot cooking water or hot MEDIUM syrup.	Jars: 30 min. Tins: 30 min.	8 min./5 lbs. 8 min./5 lbs.	R Enamel
Figs (All types): HOT WATER PROCESSING Wash but do not stem, cook in soda water (1 cup soda to 1 gallon water for 6 quarts of figs) for 5 min., drain and rinse, cook in boiling water 60 min., pack hot and cover with hot MEDIUM syrup.	Jars: 30 min. Tins: 30 min.		C Enamel
Figs (All types): PRESSURE PROCESSING Wash but do not stem, cook in boiling water 2 min., prepare a MEDIUM syrup with this water and boil figs for 5 min., pack hot and cover with hot syrup from cooking.	Jars: 10 min./5 lbs. Tins: 10 min./5 lbs.		
Nectarines and Peaches (All types): Process as Apricots but halve and pit instead of packing whole.			
Pears (All types): Wash and stem, blanch and peel, halve or slice and core, pack cold and cover with hot syrup (MEDIUM), or cook 5 min. in boiling water and pack hot, cover with hot water or syrup.	Cold-pack Jars: 30 min. Tins: 25 min. Hot-pack Jars: 20 min. Tins: 20 min.	10 min./5 lbs. 10 min./5 lbs.	Plain tin
Plums (All types): Wash, puncture skins and pack cold, cover with hot MEDIUM syrup, or cook in boiling water until skins pop and fruit is soft, pack hot and cover with hot cooking water or hot syrup.	Cold-pack Jars: 20 min. Tins: 15 min. Hot-pack Jars: 5 min. Tins: 5 min.	10 min./5 lbs. 10 min./5 lbs.	R Enamel
Rhubarb: Wash, cut in manageable lengths, cook in boiling water until easily pierced with a fork, pack hot and cover with hot THICK syrup.	Jars: 5 min. Tins: 5 min.	5 min./5 lbs. 5 min./5 lbs.	R Enamel
Strawberries (All types): Wash and stem, pack cold and cover with hot MEDIUM syrup, or cook in MEDIUM syrup until tender and pack hot, cover with hot syrup from cooking.	Cold-pack Jars: 45 min. Tins: 35 min. Hot-pack Jars: 5 min. Tins: 5 min.	DO NOT ATTEMPT TO PROCESS STRAWBERRIES BY THE PRESSURE METHOD	R Enamel

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**The times shown on this Guide are for pint and quart jars and No. 2 and No. 303 tin cans processed at elevations no greater than 1000 feet. For each additional quart or portion thereof processed in a single container, increase the processing time by 1/3 of time shown for one quart. For each additional 1000 feet or portion thereof, increase the processing time by 1/5 of the time shown for one quart.*

***The times shown on this Guide are for pint and quart jars and No. 2 and No. 303 tin cans processed at elevations no greater than 2000 feet. For each additional quart or portion thereof processed in a single container, increase the processing time by 1/5 the time shown for one quart. For altitudes greater than 2000 feet increase the processing pressure by 5 lbs. If tin cans are used for canning foods by the pressure method, the pressure may be reduced immediately after processing by running cold water over the pressure cooker until it is thoroughly cooled. Follow the manufacturer's instructions for pressure canning with glass jars. If there are no instructions with your pressure cooker, allow pressure to reduce slowly when using glass jars for pressure canning.*

NOTE: More complete tables for home canning, many recipes and a great deal of related information is available in two very inexpensive books:

THE BALL BLUE BOOK
Ball Corporation
Muncie,
Indiana 47302

THE KERR HOME CANNING BOOK
Kerr Glass Manufacturing Corp.
Sand Springs,
Oklahoma 74063

The books cost only 35¢ apiece and each covers home canning in exhaustive detail. Get one or both and *really* know what you're doing before you fill that first container.

(continued from preceding page)

be punctured with a fork to prevent their skins from bursting during processing. A quick way to peel produce is by blanching. Simply immerse the fruits and vegetables in boiling water for one or two minutes, drain, cover with cold water to permit handling . . . and peel. Often the skins will slip right off, almost by themselves.

Once prepared, the food being canned is then packed into the sterilized containers and processed immediately. Allow a one-inch head space for starchy foods (corn, peas, beans) and a one-half-inch head space for other fruits and vegetables when you pack them. Some foods can be cold-packed (packed into containers uncooked) and covered with syrup or water. Cooked foods are packed hot (hot-packed) and covered with the liquid from cooking. Cold-packed foods shrink during processing and should be packed tightly. Hot-packed produce should be placed in the cans fairly loosely.

Use a knife blade to release any air bubbles trapped in the containers. If food is cold-packed into tin cans, place the open cans in a hot water bath that comes within two inches of the top of the cans. Boil until the temperature of the food reaches 140° F for fruits and soft vegetables or 180° F for harder vegetables. Seal cans while hot and process immediately as with hot-packed foods. Syrup for cold-packed produce should be prepared in advance, kept boiling hot and poured over the foods after they've been packed.

Tin cans are sealed before processing. If glass jars are used, screw the tops on tightly before processing, then turn back one-quarter turn to allow steam to escape during the operation.

Processing is the very heart of preserving canned foods. This is the "cooking" which kills all bacteria in the containers . . . most especially the *Clostridium botulinum* bacteria which lies dormant in the soil but thrives inside an airless container. It is estimated that only one teaspoon of botulinum toxin could kill the entire population of the United States so *do not try to shortcut processing time in any way when canning.*

On the other hand, please do not get the idea that home canned foods are any more dangerous than commercially canned foods. Properly processed, either is entirely safe. Improperly processed, either can kill you . . . as the recent deaths caused by products packed by Bon Vivant Soups, Inc. of Newark, N.J. have—unfortunately—proven.

When processing foods in a pot filled with boiling water, one group of containers can be removed and replaced with another without interrupting the boiling. Foods processed in a pressure cooker, however, must remain inside the cooker for ten minutes after the heating operation. Pressure may then be released slowly through the cooker's safety valve. Although the pressure cooker method is somewhat more complicated and time-consuming than the hot water bath, processing times of many foods can be more than cut in half with the cooker.

After processing, lift containers out of the pot or cooker and set the cans or jars on a towel or piece of cloth (never on a cold surface). Seal all glass jars tightly (tin cans and self-sealing jar tops are sealed before processing). Leave all containers at room temperature for two or three days to check seals, and immediately use the contents of any jar or can which shows signs of leakage.

A badly leaking jar or bulging tin of stored canned foods is an almost *sure* sign of spoilage. An outburst of air or a spurting of liquid when a container is opened also usually indicates spoiled contents. *Never* taste food from a freshly-opened can or jar in an effort to determine spoilage. It is possible for food to contain botulinum toxin without showing any sign of being tainted and your taste test could be a fatal mistake. Boiling will destroy the odorless and usually tasteless toxin, however, and health authorities strongly recommend that all canned (home or commercially) foods be boiled for ten minutes after opening and before eating. For a guide to canning produce, see Figure 6.

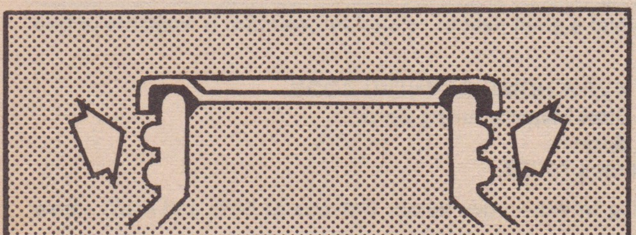
IN CONCLUSION

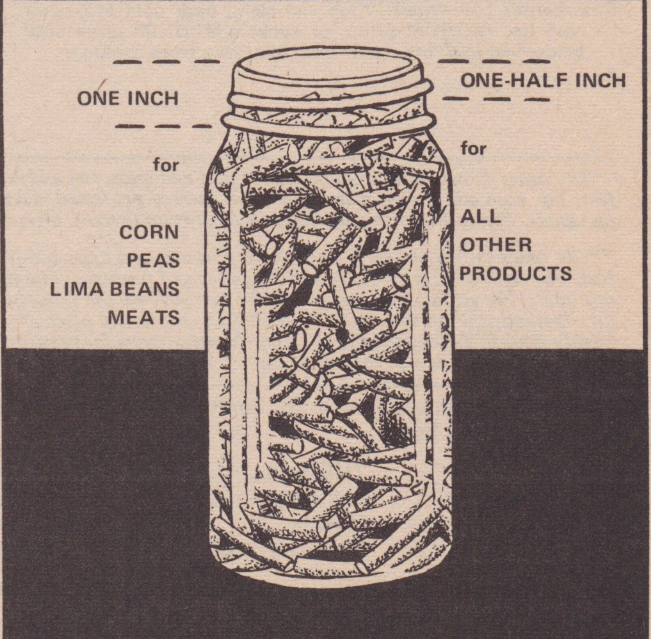
It *is* possible to eat (and eat quite well) year-round without the blessing (or curse) of a refrigerator and/or food freezer. That's a good thing to know, especially if you've been wondering how to solve the victuals problem on a homestead way out there somewhere beyond the power lines.

Furthermore—once you kick the supermarket and frozen food habit and start storing, drying and canning your own naturally-grown produce—you're sure to be both money and health ahead. You may even find it surprising when you taste real food for the first time in your life!

FIGURE 7. proper filling and sealing of jars

RIGHT: Allow proper head space of one inch for corn, peas, lima beans and meat . . . one-half inch for all other home-canned products. BELOW: This cross-section of a self-sealing lid shows how a good rubber ring seals all around jar top . . . inside, outside and on top. There's no chance for air to get in.





MORE DEAR MOTHER,

(continued from page 4)

I came home from our land down the road the other evening a walking, sweaty, stinking mass of old bird crap, mouse nests, hay and filth from the buildings I'm tearing down. It seems senseless on hot days . . . tearing down someone else's abandoned dreams in order to build our own. No one said it would be easy, but this hard work gets old . . . and city dreams of working the land in honest dirt are dimensions apart from the realities of a face full of bird crap.

Anyway, things were lookin' kinda low when along come two friends with their dreams, some cold brew and two copies of MOTHER. I opened a cold one and dived in. Look . . . here's a letter from some very concerned people who want out so bad I can feel it half a continent away (nostalgia: I remember us a year ago) and . . . wow! here's an article by someone who has a goat. Pretty soon our next project looks simpler and I feel better . . . there are people like us all over . . . people who looked at the world around them and the life within them, sensed something wrong and went out to see if they could build something that was right.

So tomorrow, I'll be back down the road again, but tomorrow I'll feel closer to our friends all over this land who'll be working and playing under the same old hot sun. Who knows, some of them may have a face full of bird dirt before sunset, too.

Bob and Winnie Schecter

We are homesteading on five acres and are into goats, chickens and organic gardening . . . your magazine has a lot to offer us. What we need most, though, is a small income to pay the mortgage so that neither of us has to drive into town for a 9 to 5 job. My husband is a fan of Jung and an excellent artist . . . but with no market. Any ideas?

Mrs. J.D. Bushey
Grass Valley, Calif.

For a start, see the article in this issue on selling paintings, folks . . . and do consult HOW TO MAKE A LIVING AS A PAINTER by Kenneth Harris. It's a fantastic guide to making the system pay an artist to live exactly as he chooses.—MOTHER.

I just bought a house here in northern Maine from a realtor who was proud (!?) of the sewage system . . . which empties directly into the Arrostook River. I'm going to suggest that our town build a disposal system based on Russell P. Howard's—the one I read about in TMEN. Could you send his address, or C.E. Burr's or K.D. Gilbert's?

One other favor—but only if it won't make the next issue of MOTHER late: please send the name and address of the nearest Shaklee Products distributor.

Jay Shapiro
Fort Fairfield, Maine

I suppose you might have tried mentioning the 1899 Refuse Act . . . but probably better to do something concrete to remedy the situation. You can contact C.E. Burr at 1261 Gravenstein Hwy. N., Sebastopol, Calif. 95472. K.D. Gilbert is at P.O. Box B-4754, Tamal, Calif.

We don't have a list of Shaklee distributors, but one close to me is Jack and Sally Moore, 10477 Prospect Rd., Strongsville, Ohio 44136. There's usually one or two others in every issue of the magazine.—MOTHER.

MOTHER No. 9's article on rummage sales mentioned using cloth scraps for braided rugs. I find braiding tedious and for others who feel the same, crocheting is quicker and easier. I use a wooden crochet needle about ¾" thick (you can whittle one very simply from a dowel and then sandpaper it smooth), and I search for wide-skirted dresses with lots of material in them (coats and bathrobes, too).

Then I rip the clothes into strips, tearing in one direction to about ½ inch from the end and then turning around and tearing the other way . . . this saves sewing short strips together. The width of the strips is determined by the thickness of the cloth . . . wool can be one inch thick, cottons at least two inches—the wider the strips the heavier the rug.

I start the rug with three chain stitches and then do a single crochet stitch around and around in circles . . . it's necessary to do two single crochets occasionally in one stitch and I do this by eye . . . when the edges of the rug start to turn up. I try to fold the fraying edges under as I go (being too lazy to hem the strips), and when I get to the end of one strip I either sew or tie on the next, keeping the loose ends on the underside of the rug.

Ruth Wishik
Brooktondale, N.Y.

I'm a professional forester, well acquainted with ecological concepts, and I've got my own tree farm which I started planting in 1925 . . . I'll be able to cut lumber from these stands during the next few years. You can't take without first giving!

Stuart S. Hunt
Syracuse, N.Y.

If you're looking for land down around Buncombe County, North Carolina, there are some beautiful Quaker people who can help you find it: Charles and Miriam Hearne, Willow Cove, Big Sandy Mush, Leicester, N.C. 28748.

We've found our own 22 acres near Barnardsville, N.C. and the land around here is breathtaking . . . lots of TMEN people buying nearby, too.

Joy and Emmett Wilson
Ashville, N.C.

Thought I'd add to the trashpicking tips of MOTHER No. 9 . . . don't forget your good old public schools, folks! The day after school's out, buildings are cleaned and lockers emptied . . . the kids are supposed to do the emptying, but they often don't. The more affluent the area, the less responsible the kids seem to be for their property.

Beautiful finds! And things are usually in beautiful condition, too. You can get coats (I got me a very warm army jacket from a selection of really nice coats), shirts, pants, socks, towels and jockstraps.

There's also stuff like paper, writing implements, notebooks and sometimes even really heavy reading material. (If you don't want the books, take them to a bookstore and sell them.)

I should mention that kids are given a limited time to come back and claim their belongings . . . but the janitor often puts the majority into the incinerator before the time limit is up. Happy pickin'.

Lady Lu or C.M. or Moonface
of Columbus, Ohio

I want to recommend a book for anyone who's going to build his own place: ARCHITECTURE WITHOUT ARCHITECTS by Bernard Rudofsky, published by the Museum of Modern Art (New York, 1965).

The book is a reproduction of a photograph exhibit held at the Museum in 1965. It contains over 150 pictures of structures built by people with no formal training . . . and it's packed full of design and construction suggestions which most anyone can use. Ideas range from carving a building out of solid rock to tying one together with bamboo. This isn't a "how to" book at all, but it sure opened my mind to techniques and materials I never would have considered.

My wife and I will be getting back to the trees and the earth this summer . . . I'm designing and building our earth-cast house by myself. We'll keep you posted.

Keith Richards
Philadelphia, Pa.

I've seen that book, Keith, and it IS good . . . so I'm glad that you reminded us to pass the word along.—MOTHER.

In MOTHER No. 8, Richard Sherrington asked about making your own tools and non-powered "power tools."

In my machine shop here, I make and market (among other things) a kit of hardware for a crane that any farmer or handyman can assemble. I am now seriously considering offering a line of metal parts—spindles, bearings, links, cranks, etc.—for foot or treadle-powered lathe, jig saw, or whatever people want. I would like to hear suggestions and comments from interested craftsmen (and women).

M.V. Stivison
136 South Park
San Francisco, Calif. 94107

Could you let people know I'm distributing Shaklee products and am anxious to talk to anyone in the Portland area who wants to distribute ecologically-sane cleaners, vitamins and cosmetics?

Your childbirth articles were fantastic . . . would you be interested in an article on breast feeding?

Sharon Morrissey
3142 S.W. Spring Garden
Portland, Ore. 97219

Shaklee buyers and potential distributors, take note. And yes, Sharon, I'd be interested in a real how-to-do-it-the-right-way piece on breast feeding. Are you into La Leche League?—MOTHER.

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MORE DEAR MOTHER,

(continued from page 89)

I'm in the import business and have various hides for sale: 25 square foot two ounce leather hides, Japanese hand block-printed in various designs ($35); and two ounce suede-like hides soft and light enough to be sewn either by hand or on a home sewing machine ($15).

I'd also like to pass along a tip on Peach Tree Curl. The symptoms of the disease—caused by a fungus—are red leaves or leaves that are blown away, eventually leaving the tree stripped.

The most helpful remedy that I've found is an onion spray. Take three or four large, strong onions (the stronger the better), run through a strainer and catch the juice directly in a four gallon sprayer (or you can just put the onions directly in the sprayer, fill with water and let set for several days in the hot sun). Fill the sprayer with water and spray the tree from the top down . . . this way the spray will drip onto the lower limbs as you work.

Wait for several weeks, then repeat . . . spray at least three times during the summer, preferably on hot days with little wind. Keep your eyes squinted as onion juice, even diluted, smarts. The results should be a regreening of the tree, new leaves and an increase in the size of the fruit.

Also, try putting manure in a circle around the tree toward the outer edge of the drip line where all feeder roots are. This will help the tree to new growth and strength, making it better able to fight off disease.

Steven H. Graf
P.O. Box 2519
Alderwood Manor, Wash. 98036

The onion spray is a good one for organic gardeners to know about, Steve. It'll also work against red spiders and repel rabbits, too!—MOTHER.

All over the globe, many of us long to return to the mountains, forests and plains where we were born. It's such influences and inspirations as MOTHER that make the yearning stronger . . . and the waiting, working and money-saving worthwhile. People like me are deeply indebted to you and to all the others out there busy digging real life.

I'm sending for my first copy of MOTHER . . . may it be followed by many more as I return to the soil this summer.

Steve Graham
Copenhagen, Denmark

Here are a few suggestions for articles to augment your already interesting and helpful magazine: (1) raising worms for fun, soil improvement and profit (2) running a commercial rabbitry . . . rabbit meat, manure and fur are useful products in farm living and The American Rabbit Breeders Association puts out a very complete manual and newsletter (3) raising other small animals such as chincillas or Siamese cats.

You may not know that the Audubon Society is now primarily concerned with ecology and puts out a great magazine on wildlife, conservation and natural history. The Society has a strong lobby in Congress and is very influential in helping to preserve the environment. Membership, which includes a subscription to the magazine, is $10 from National Audubon Society, 1130 Fifth Ave., New York, N.Y. 10028.

Victoria Purves-Smith
Clearwater, Fla.

I've got articles coming up on raising worms and rabbits . . . but, so far, haven't seen anything on chinchilla ranching or raising Siamese cats.

I'm glad you mentioned the Audubon Society . . . those folks were turned on to ecology and natural preservation long before it became the big issue that it is today.—MOTHER.

Just received MOTHER NO. 9 and find it simply wonderful reading . . . but I must offer a word of warning regarding Stuart Silverstein's article on "Garbage Can Water." According to PREVENTION MAGAZINE (February, 1971), "people have gotten sick from zinc contamination of food from galvanized containers." Seems as though toxic amounts of zinc are ingested. And I've read something somewhere about people at a party dying from drinking punch from galvanized garbage cans.

Dyan O'Connor
Honolulu, Hawaii

A very inexpensive feeder for small stock on the homestead is the inside top from an old washing machine (people discard these machines by the dozen).

The tub is usually enameled, so there are no sharp edges, and if there is a big hole in the bottom of the tub, bolt on an iron plate or a board. It will hold feed very well.

Gerald Bringle
Bagdad, Arizona

About recycling and urban poverty and going back to the land and the plight of the small farmer . . . some thought to share with whoever can use them:

If geodesic domes or tipis are what feels good, fine; or if going back to nature means creating from the ground up, also beautiful; but I keep watching something that tears me up: the number of abandoned farms and country buildings (in this age of urban housing shortages) is staggering. A drive into the country, even a short way, reveals countless shacks, tumbled houses, just empty houses and entire sets of farm buildings begging to be recycled.

Why aren't these amazing numbers of abandoned places being grabbed by the great spirits going back to Mother Earth. While I don't have facts on comparative prices or potential deals (squatting?) one could make with the site owner (rarely the original farmer), I can't believe that these places are that dollar prohibitive. Can't those of us hearty enough to build our own places just as well use our energy to repair the sadness these farmers have left behind?

While crass land development commercials and get-your-piece-of-nature-now campaigns go on, 50,000 farmers each year are being forced off the land. And city folk with visions of A-frame summer suburbias buy up plots from Mt. Ranier to the Bahamas not caring how the soil is graded, trees are tumbled or farmers evicted.

I want the kind of people who read MOTHER to get the land instead of the A-frame builders. I want the people who read MOTHER to consider rebuilding instead of building anew—the ultimate recycle (like the recycling of schoolhouses covered in TMEN).

And assuming that the land developers will not quit, I want MOTHER readers and comparable folk to get that land before prices are out of reach of us all . . . before any more farmers give in to the developer deals and sell out . . . before the land is sprawled with people who retain rat-race minds and buy in the country for status. I entertain hopeful suspicions that people buying/getting one or two or 12 abandoned places which adjoin farmers on the brink of giving up will provide enough of an energy example to persuade the farmers to stay.

A lesser observation for those of us still tied to the city for whatever excuses and commitments: next time you travel . . . consider a bus (preferably a local). You can often discover much, save lots of cash and—if you've been used to driving—help cut down on pollution.

A question . . . how easily are wildflowers destroyed? Is there some way to cut them to insure their growing again?

Finally, a rather open offer, limited to time and energy and contacts . . . is there some way I can help MOTHER readers (producers)? I'm based in Washington D.C. for another year with a full-time job, but have an enthusiastic interest in MOTHER-type concerns.

Marilyn Merkt
Washington, D.C.

No question about it, Marilyn, I'm in strong favor of recycling old houses in both the country and small towns. See Vic Croley's article, REVITALIZE A VILLAGE AND MORE IN FREE, in my No. 7 issue . . . and I have more on recycling old buildings coming up.—MOTHER.

This evening as I sit in my quiet little abode and reflect on the recent past, I realize that I've done very little in the battle to save the earth. Unfortunately, the only thing I have to offer right now is a very small amount of cash . . . which I send hoping it will help MOTHER keep up her terrific effort to inform people about what is happening to the planet we call home.

I'd like some info. on setting up a health food dealership. The bread would help to pay for the bills and still contribute something worthwhile at the same time.

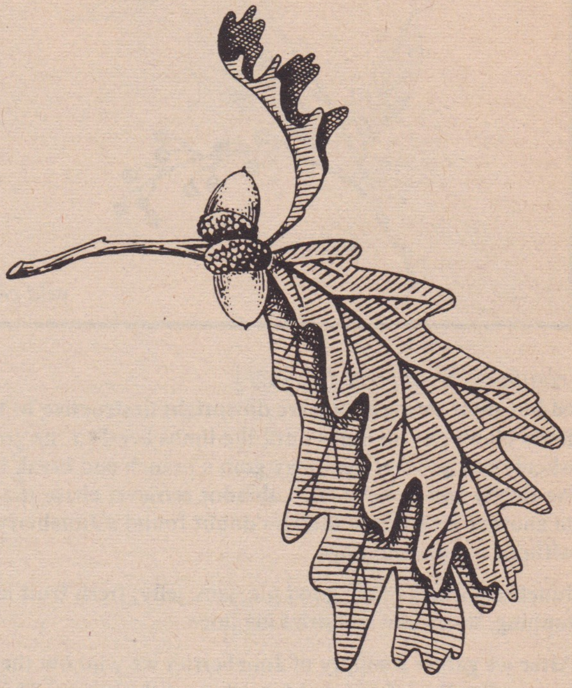
Thanks to Leonard Hoy—wherever he is—for turning me on to MOTHER (I'm sure he'll get the message . . . he's a faithful reader).

Steve
Leesburg, Ind.

Thanks, Steve, for your contribution and your warm words. For help in getting a health food dealership started, get the monthly newsletter called ORGANIC FOOD MARKETING ($5.00 a year from Rodale Press, 33 East Minor St., Emmaus, Pa. 18049). It's all about what's happening on the organic food shops, departments and restaurants; trends in marketing; merchandising ideas; important meetings and events affecting organic food progress.—MOTHER.

(continued on page 115)

food without farming



by JAMES E. CHURCHILL

July and August are very productive months for the wild food forager and almost everything that produces edibles has something to offer at this time of the year. True, the greens are a little tough but trimmed chicory and dandelion are good all summer.

The cattail, too, has white salad material in the stem bases and—in some areas—the new cattail itself is still green and hard. Green cattails make a good substitute for Zucchini squash if it's baked for a few minutes at 350° and then swabbed with melted bacon grease.

Blueberries and huckleberries ripen in mid-summer and, of course, blackberries and raspberries are also at their delicious best. We like to pick berries and our whole family turns out to fill pail after pail.

A special treat which July gives us are wild cherries and Juneberries (or shadberries). Near our camp in Northern Wisconsin is a 25-acre ridge that is a virtual Juneberry orchard. Hundreds of water pails wouldn't hold the crop from this one ridge in an average year . . . and not far away are a dozen pin cherry trees that yield red, sweet, delicious cherries as large as the end of your little finger.

Picking Juneberries and pin cherries is more fun than work. Both can be stripped from their branches by sliding the fruit-filled twigs between the thumb and forefinger almost like milking a goat.

Down here in southern Wisconsin another fruit also ripens on trees and is at its best right now: the sweet and delicious black cherry and choke cherry. Picking black cherries is best accomplished by spreading a canvas or other cloth under the tree and shaking the limbs with a pole that has a branch hook wired to its end.

Mid-summer is also the time to harvest a large rhubarb-like plant that grows up in rich soil over the temperate regions of the nations; Wild Gobo or Great Burdock. And we musn't forget Wild Onions, either!

I'm getting hungry just thinking about all this foraged fare so let's get down to specifics about these foods.

As I mentioned before, picking Juneberries *(Amelanchier Canadensis)* from the trees in northern Wisconsin is no great chore. They usually grow so thick they can be stripped from the branches in handfuls. The berries go through three stages. First they're green (and of course inedible), next they turn red (and in the latter red stages they're sometimes very good and juicy) and—finally—the berries reach a final blue ripe stage. Usually we pick them as they purple from red to blue.

People aren't the only creatures that like Juneberries. One year we had severe competition from a family of two cubs and a sow black bear who practically lived in our Juneberry orchard. We didn't really mind if the bears ate all the berries they want-

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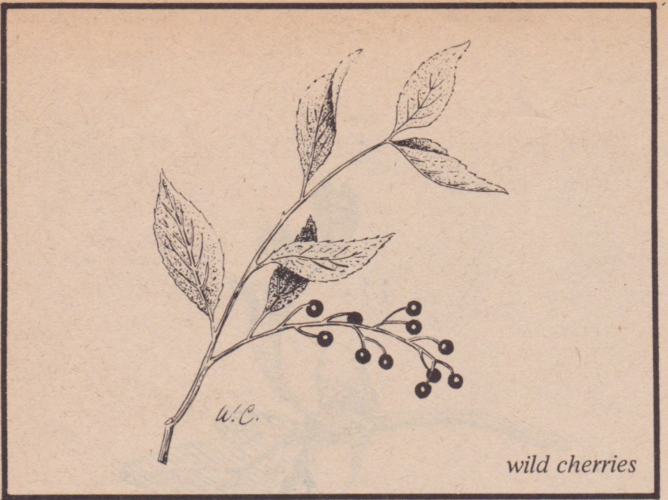


wild cherries

(continued from preceding page)

ed but their eating habits are downright destructive to the trees. Bears climb out on limbs until the limbs bend to the ground whereupon another bear may grab a branch and break it off. We finally had to have our Labrador retriever chase the bears to another area where they no doubt found a Juneberry orchard without people and dogs.

Juneberries make very good pie, jam, jelly, fresh fruit ice cream topping, shortcake and drinking juice.

After we gather a supply of Juneberries we winnow the berries by pouring them from pail to pail in a light breeze. This blows away the twigs and leaves. We then drop the berries—a few at a time—into water to float away whatever impurities might remain.

Make Juneberry pie sifting together two cups of white flour or whole grain wheat flour and one teaspoon of salt. Cut in 2/3 cup shortening until the particles are the size of small peas and sprinkle five to six teaspoons of cold water over the mixture. Toss lightly with a fork until dough is moist enough to hold together.

Divide the dough into two balls and roll one out into an 11-inch circle. Loosely cover the bottom of a 9-inch pie tin with this circle and fill the dough-lined tin to a slight heap with washed Juneberries.

Mix 3/4 cup brown sugar, 1/4 cup flour and a scant teaspoon of salt. Sprinkle this over the berries and dot with butter. Roll out the rest of the dough, spread over the berries, poke a few holes in the top dough and bake the pie for 10 minutes at 425°. Turn oven down to 350° for another 30 minutes or until crust is golden brown.

A second Juneberry recipe which tastes something like pie but is quicker is Juneberry Crunch. Combine one pint of fresh, washed, ripe Juneberries with two tablespoons of any kind of flour. Add 1/4 teaspoon salt, 1/2 cup brown sugar and two tablespoons lemon juice and spread this mixture in the bottom of a well greased 9-inch pie tin.

Further combine one cup sifted flour, one cup steel-cut oatmeal, 1/2 cup brown sugar, 1/2 teaspoon salt and 1/2 teaspoon vanilla. Cut in 1/2 cup butter until mixture forms small lumps and sprinkle lumps over Juneberry mixture. Bake in moderate oven 30 to 40 minutes.

I also would like to pass on our Juneberry Cake recipe. Sift two cups sifted flour with 1/2 teaspoon salt, one teaspoon soda and 1-1/4 cups brown sugar. Add 1/2 cup shortening, 1/2 cup sour cream, three eggs and one teaspoon of vanilla. Beat for five minutes. Mix in one cup crushed and sweetened Juneberries and pour into well greased and lightly floured 12x8x2 cake pan and bake in 350° oven 40 to 45 minutes. Serve with more crushed, honey-sweetened Juneberries.

Drinking juice is made from the berries by barely covering a quantity and simmering them for 20 minutes over a low fire. Strain through jelly bag, sweeten to taste . . . cool and drink.

Juneberry jelly is a beautiful sight. Make it by extracting the juice as above and combining one box commercial pectin to 3-1/2 cups juice. Place over fire and bring to a rolling boil. Add an equal amount of raw sugar. Bring to a high boil again and hold for one minute. Skim off foam with a metal spoon and quickly pour into sterilized jelly jars. Seal with paraffin.

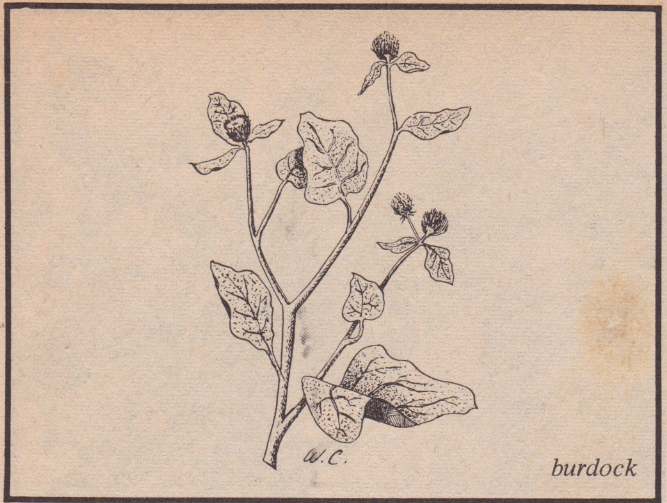
Make Juneberry jam by crushing the berries and adding one box commercial pectin to 3-1/2 cups whole, crushed fruit. Bring to a boil and add equal amounts of raw sugar. Bring to a boil again. Hold boil for one minute. Stir, skim and cool until foam is all gone and ladle into sterilized jars. Seal with paraffin.

If you have some Juneberries left over, freeze or can them for winter. They can be frozen in a sugar syrup made by combining one part brown sugar to three parts water. The berries can also be frozen dry by placing them in a freezing container with a teaspoon of brown sugar over each cup of berries.

Can Juneberries by filling pint sterilized jars to within one inch of the top with washed, ripe fruit. Make light syrup by boiling 2/3 cup brown sugar and 1-1/2 cups water. Pour this syrup over berries in jar to barely cover them. Seal with sterilized lids and process in canner by bringing to a boil and holding for 30 minutes. Cool on thick toweling.

Pin cherries *(Prunus Pennsylvanica)* often grow very near Juneberries and ripen at about the same time. They taste almost like sour cultivated cherries to me.

Pin cherries vary in quality greatly and sometimes they're exceptionally small and don't seem to be much more than a thin skin stretched over a hard seed. In other places, like the southern tier of counties in the upper peninsula of Michigan there are many pin cherry trees with large, almost-sweet cherries full of juice and pulp. We gather ours from this area and time our trip so we arrive there about the 4th of August or a little later. Sometimes we camp near a concentration of pin cherry trees and render out a few gallons of juice for winter while we take advantage of the good fishing and wonderful climate the upper peninsula offers this time of year.



burdock

Pin cherry juice is extracted in the time-honored way of placing the cleaned cherries in a kettle and covering them with water. Simmer for about 20 minutes or until the fruit is pale, withered lumps and the water bright red. If you taste this extract, you'll quickly notice that there's nothing quite as sour as pure pin cherry juice! Extract the juice with a jelly bag or strain it through cheesecloth right from the cooking kettle.

Pin cherry jelly is made by combining 3-1/2 cups juice with one box of commercial pectin. Bring to a boil and quickly add 1-1/2 pounds raw sugar. Bring to a boil again. Hold for one minute. Pour in sterilized jelly jars. Seal with paraffin.

Pin cherry pie tastes exactly like domestic sour cherry pie to me, the only handicap being separating the seeds from the pulp. I do this by pinching the cherries between the thumb and forefinger until the seed pops out. A cherry pitter will work also and I suppose the cherries could be cooked first and the seeds spooned out of the mixture. Still, I don't know of a *really* good way to separate the seeds from small wild cherries. If any reader has a method that works I would be glad to hear about it. Just drop MOTHER a note.

Pin cherry pie is made by combining three tablespoons corn starch, 3/4 cup brown sugar, 1/2 teaspoon salt and one cup of cherry juice. Combine ingredients in a saucepan and cook over medium heat. Stir constantly until mixture thickens and boils. Then add two tablespoons margarine, two pints of pin cherries and two teaspoons sumac juice or one teaspoon lemon juice and pour mixture into a 9-inch pie tin that has been lined with dough. Cover with top crust, perforate and bake in a 425° oven for ten minutes. Turn oven to 350° and bake for another 30 minutes or until crust is golden brown.

Pin cherry jelly is made by simmering ripe, washed, crushed pin cherries in a little water for ten minutes. Strain the juice through a jelly bag and use the directions in the commercial pectin package for sour cherries. This jelly is a beautiful red.

Juice extracted from the pin cherry—either cooked or uncooked—makes a darn good drink. Mix it half and half with apple juice or grape juice and sweeten to taste. Nothing wrong with it straight either.

I had the privilege of tasting pin cherry wine once and it has never left my memory. I don't know the exact recipe used but I think it goes something like this: crush eight pounds of pin cherries enough to break the skins and place in a stone crock. Add four quarts of water. Boil this water first and while it's boiling dissolve in nine cups of raw sugar. Cool and pour the water and sugar over the cherries.

Dip out a cupful of the mixture and dissolve one package of dry yeast in it. Pour the yeast mixture in the crock, cover the crock with a cloth and let it work for about ten days. Next, strain the wine into another crock or into gallon jugs and cap lightly with cotton or cloth. Leave for about one month.

After a month, siphon the wine into bottles, cap tightly, wrap with opaque paper and store in a cool, dark place until you're thirsty. Don't get so interested in pin cherry wine, though, that you neglect the finest cherries of all that fruit this time of year: the sweet black cherry.

Black Cherry *(Prunus serotina)* trees are frequently found growing along roads and in rich fence rows and woods. The cherries are ripe when they are very black and soft. They go through a red stage also and they can be used for jelly then but they are at their incomparable best when they're ripe enough to shake off the trees into a canvas below. One handicap in picking black cherries is the considerable altitude at which they are sometimes found growing. A lady from Cabot, Vermont has written me that it took her and her two boys most of the afternoon to gather enough for jelly.

I solve this problem by spreading a canvas under the tree and then whacking away at the berry-filled branches with a stick until the ripe berries fall into the canvas. I then simply pick the cloth up and pour the berries into a pail. Thirty minutes of this activity in a good tree will deliver a year's supply of black cherries.

We use black cherries for drinking juice and jelly and extract the juice in the usual way by simmering crushed fruit in a little water for 20 minutes.

Sterilize some pint jars, set them aside and separate the juice by processing it through a jelly bag. The drinking juice is then boiled hard for two minutes and poured quickly into the sterilized pint jars. Seal immediately.

Black cherry jelly is made by adding one box of commercial pectin to three cups of juice. Bring to a hard boil, add four cups of sugar, then bring to a hard boil again and hold one minute. Stir, skim and pour into sterilized jelly jars. Seal with paraffin.

Choke cherries *(Prunus Virginiana)* are a good cherry for jelly. Make it by adding half apple juice to half choke cherry juice and following the directions on the commercial pectin package.

The Sault Ste. Marie, Ontario, Canada area has the biggest juic-

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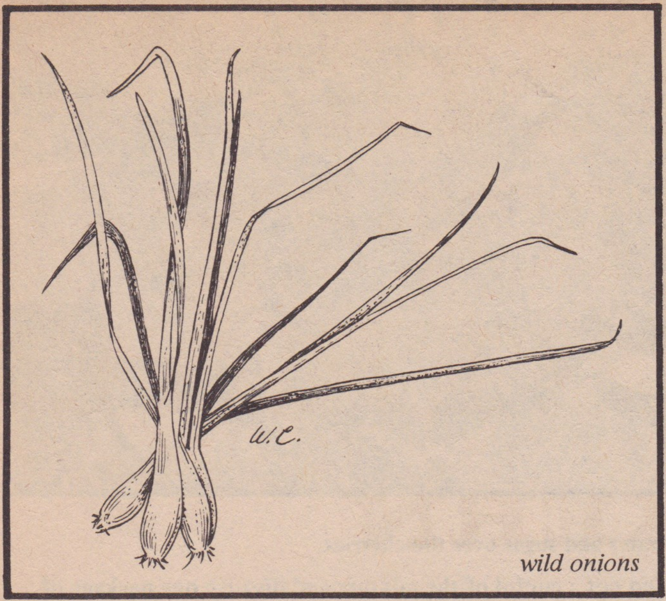


wild onions

(continued from preceding page)

iest choke cherries I've ever seen but in our region they're small and bitter and I haven't used this fruit much except for jelly or eating raw. A lady in Canada told my wife that they use choke cherries for jam, jelly and preserves. Perhaps some reader from up that way would care to send along pointers on making jams or preserves from this fruit. I have no doubt that choke cherries could be mixed with the rather bland blueberries to produce some good preserves.

Often while picking cherries I see a large-leafed, stout-stalked, rhubarb-like plant growing in areas of rich, moist soil. This is the Great Burdock *(Arctium lappa)* and I get as much good as I can from the plant before it turns into a mass of burrs that tangle in my dogs' coats.

When great burdock is small it makes pretty good boiling greens. Let the leaf stalks lengthen to about a foot long and they can be peeled and served as salad or cooked and treated like asparagus. At just the right time of year (early July in our area) the roots of the first year of this biennial plant can also be dug, peeled and cooked as a vegetable.

One of the nicest things about burdock is that it grows thickly and has considerable vegetation. Only a few minutes of picking will fill a kettle full of greens and stems.

Greens are prepared by boiling the leaves and very young stems two to five minutes in lightly-salted water. Serve with melted butter, salt and pepper. Older plants may have to have the water changed once to reduce the bitterness.

Peel the young stems (be sure to remove all the bitter rind) and cook them in two waters, also. Serve with melted butter. The young leaf stems can be par-boiled and used as a vegetable for soups or as side dressing for meat.

The roots of the burdock are a good vegetable also . . . the hurdle is gathering enough for a meal. I know of a considerable patch that grows in loose peat soil and another that grows near our chicken house in hard clay. The roots in the peat soil can be dug anytime. The roots in the hard clay are almost impossible to dig except after a long soaking rain . . . they're definitely the best quality, however, and we use them when we can. We peel and slice the big ones and chop them into four-inch pieces.

The quality of burdock roots is controlled by the age of the plant, the soil balance and the amount of rainfall and cooking burdock roots is a trial-and-error proposition. Sometimes they're tough, have to be boiled a long time and the water changed to make them palatable. Other times they can be cooked for only a few minutes and eaten. Either way, the roots are mighty good served hot with butter or gravy.

Two other products of the burdock are the bloom stalk and the green burrs. The bloom stalk is harvested when the flower heads are starting to form. Slice off the flower, peel the bloom stalk and cut the white stem into bite-sized pieces. Boil until tender and serve like the roots.

I once tried pickling the bloom stalk in vinegar water and it made a pretty good pickle after curing for the best part of the summer. The solution was one part cider vinegar to one part water, with a few celery seeds and sage added.

Burdock is a darn good plant and it would pay the wild food forager to make better use of it.

At about the same time that burdock is coming into its own in Wisconsin, another plant is maturing on rich hillsides and in meadows. Wild onions, especially *Allium Tricoccum*—with their flat grass-like leaves—are one of the first plants to come up in the spring. The bulbs grow to the size of a marble (but longer, of course) and the plants then flower and die.

Onion and dandelion salad is very good, to my way of thinking, and it provides many needed vitamins and minerals in early spring when our system is bleached out from winter's bleak weather. I make this salad by cutting the white crown and very small green leaves of the dandelions into small pieces.

Foragers who read Food Without Farming in MOTHER NO. 3 will recall that the dandelion is tender and mild when it first comes up and that a white, crisp leaf crown grows slightly below the surface of the ground. This crown is a delicious salad material.

After I've gathered a cupful of dandelion leaves and crowns, I pick and chop a good handful of wild onion tops into small pieces and toss them with the dandelion crowns. A little bacon grease is all the dressing I need. The only handicap is that you can't sell anything to anybody for a few hours after eating such a salad.

Wild onions are a good addition to soup, make a fine vegetable boiled alone and are mighty tasty when served as side dressing for meat. Pick and eat a lot of 'em. They're too good to waste!

THE OWNER-BUILT HOME & HOMESTEAD

KEN KERN

THE OWNER-BUILT HOME, VOLUME 1, CHAPTER 4

SUMMER COOLING

Since 1952 refrigerant air-cooling has come into its own in this country. This was the year that mass-produced home air conditioning units suddenly appeared on the market. The 20 companies sold 250 million dollars worth of equipment and were forced to turn down 100,000 customers. Now there are over 70 companies producing air conditioning units, with an increase in output of 500%. Loaning agency figures indicate that 40% of new homes have included some form of central air conditioner. We hear more and more about Heat Pumps, Combination-unit Air Conditioners, Dehumidifiers, Package-split-system Units, and Evaporative Coolers.

Costs run high for all this air-conditioned comfort. In a survey conducted by the National Association of Home Builders it was found that the cost of installing an average-sized air-conditioner in an average-sized house came to $1308. The operating expenses exceed $70 per summer season. And the Heat Pump, avowed king of year-round air-conditioners, costs from $2500 up to install.

In this chapter I have no intention of discussing the possible advantages of one type of air-conditioner over another. In my opinion, they are all too expensive and inefficient; and totally unnecessary where even the most elementary rules of good planning are respected. The design of a residential *cooling* system should not have to meet the same physiological requirements as the design of a *heating* system. Whereas heating systems must produce an indoor temperature of at least 70 degrees F. (regardless of the outside temperature), the cooling system need only supply a drop in temperature of 10 to 20 degrees below that of the outside. Mechanical air-conditioners produce greater cooling differentials and thus are a "real injury to health," according to the American Public Health Association: "Heavy sweating in a hot outside temperature leaves moisture in the clothing which greatly increases the possibility of chilling when the body is exposed to a lower indoor temperature."

The mechanistic approach to heating and cooling requirements is based on the assumption of a steady flow of heat. Actually, however, heat flow varies with time of day and of seasons, and is further influenced by site-orientation, building-structure, planting-design, and period of house

(continued on next page)

Ken Kern, author of THE OWNER-BUILT HOME and THE OWNER-BUILT HOMESTEAD, is an amazing fellow and everyone interested in decentralist, back-to-the-land, rational living should know of his work. Back in 1948 he began collecting information on low-cost, simple and natural construction materials and techniques. He combed the world for ideas, tried them and started writing about his experiments.

Eventually, Mildred Loomis started publishing Kern's articles in THE INTERPRETER, WAY OUT and GREEN REVOLUTION. Ken has also issued a three year series of pieces (called TECHNIC) on his own and a greenhouse-sun pit design of his has been featured in ORGANIC GARDENING.

This series of Ken Kern's work is being taken both from OWNER-BUILT HOME (already published) and OWNER-BUILT HOMESTEAD (to be published). To give you advance chapters of HOMESTEAD as they are written I have to break my presentation of HOME on an irregular basis for which I apologize. If you want HOME all at once it's available right now direct from Ken Kern, Sierra Route, Oakhurst, California 93644 for $10.00. —MOTHER

contact

CONTACT, unless it gets out of hand, will be run as a service to help people get together. A flat 25¢ charge is made for any CONTACT placed or answered through TMEN. The addresses of individuals will NOT be printed in CONTACT . . . just to keep everyone anonymous and free from hassles. TMEN will forward all letters to the proper parties.

SPECIAL NOTICE: If you want to run a listing in CONTACTS, send the information and 25¢ to MOTHER.
When you answer a CONTACT or CONTACTS that must be forwarded: (1) Put each letter into a separate envelope. (2) Stamp and seal the envelopes, BUT DO NOT ADDRESS THEM. (3) Pencil lightly on each envelope the code name of the CONTACT (example: Mike M., Salem, Missouri). (4) Put the whole mess—with a quarter for EACH envelope to be forwarded—into a larger envelope addressed to MOTHER.

We are man (25), woman (22) and child (6 mo.) looking for other families interested in finding a small place, preferably in Oregon, with enough land to farm organically. We plan to work on the outside until we have enough money and ideas to do otherwise. We'd appreciate advice, ideas and, of course, companions.

Carrie and Richie
Ridgewood, N.J.

Much as I admire and enjoy the young, I sometimes long for someone of my own age group (over 50) who remains vital and open to new ideas.
I still walk or climb 20 to 30 miles happily in a day, grow food organically, and love to sleep on the ground. I see no scientific reason for having to grow old physically, and it is almost never too late to begin growing younger.

I'm interested in finding some land away out somewhere . . . preferably among high hills . . . building cabins or yurts to live in, producing nearly all of the simple needs, and sharing this way of life with others.

Is there anyone (several would be better) of my age—or any age—who would like to join me?

Robin
Kingsport, Tenn.

We are a newly formed communal group seeking ways to minimize our economic and social dependence upon the plastic-capitalist establishment. Toward this end, we would like to hear from others similarly inclined. We especially seek communication from groups throughout the country who are interested in establishing (or have established) a community of communes. Please contact the brothers and sisters of Wooden Ships so we can set a course and go . . .

Wooden Ships
Silver Spring, Md.

My wife and I would like to meet other couples interested in buying . . . and then splitting among us . . . some of the 100-150 acre tracts within 60 miles of Washington, D.C.

Richard D.
Blandensburg, Maryland

(continued from preceding page)

occupancy. Heating and air conditioning salesmen tend to oversimplify the thermal requirements for homes, but never mention the fact that heating and cooling needs are of a temporary and local nature. As with electric fans and lights, the artificial heating-cooling aids that we use should be "space" equipment—employed only when and where needed. One of this country's foremost climatologists, Dr. Paul Siple, summed it up succinctly when he said in his Building Research Advisory Board speech:"Although we have made constant improvements in buildings and have many mechanical developments to our credit, we must admit that some of these improvements, such as air-conditioning, have really been developed in order to rectify errors or inadequacies in basic design." At the same conference the feeling was expressed that our present technical attitude tends to produce buildings which are always "fighting their environment" instead of working with it. Buildings have become over-engineered. Technical facilities are employed to counteract situations which common-sense attention to site, orientation, sun-path, wind-path, and even proper use of vegetation might well prevent.

This specialized, over-mechanization of modern houses has driven us into a vicious circle of equipment-acquisition with no end in sight. For instance, about one-third of a ton of refrigerant is wasted in counteracting the heat generated by a TV set alone (3400 BTU an hour). This amounts to about $200 in first costs of an air conditioner. If one includes the heat generated by the refrigerator, water-heater, and stove, the first costs come to over $300—money wasted before the rest of the room temperatures have been reduced by one-tenth of a degree!

There is only one alternative to this unending purchase of artificial aids to keep the house interior cool; a clear understanding of heat-flow principles, ventilation effects, and cooling requirements. In some instances a form of mechanical ventilation *may* be called for in a new home; but for the most part *natural* air conditioning can be relied on, including adequate and well-placed insulation.

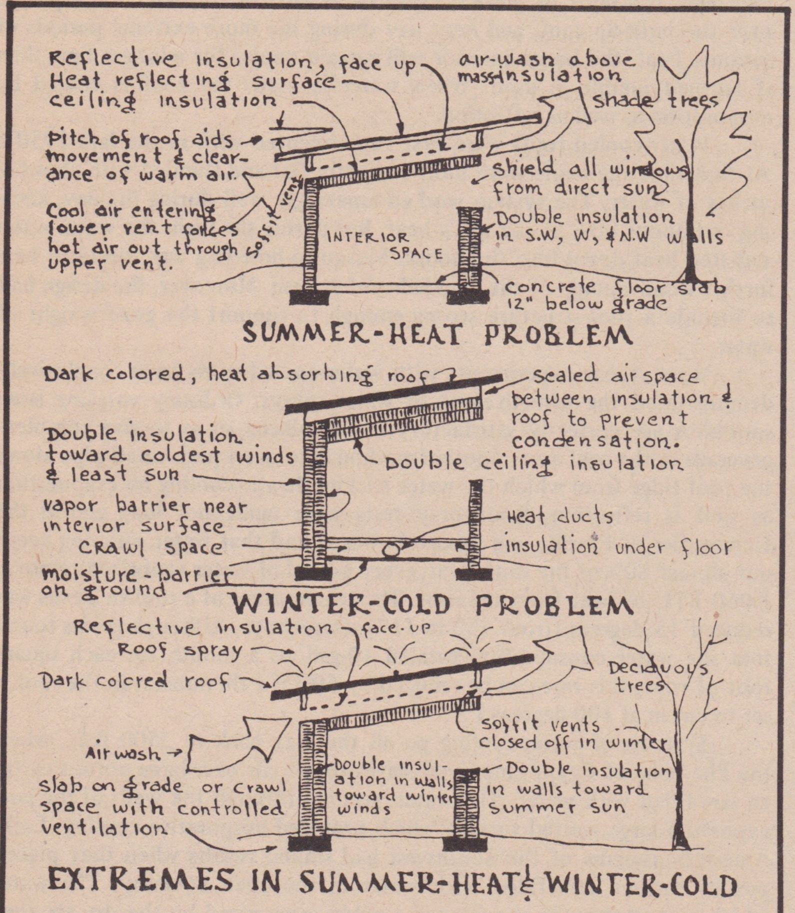
It is a known fact that it costs three to five times as much to remove a BTU of heat from a house in summer time as it does to add one in winter. This statement can be better appreciated once it is realized that a black roof-top on a clear summer day can be expected to reach 150 degrees F. in any part of the United States. Roofs receive twice as much heat from the sun as do walls. Unventilated attics have been known to reach temperatures of 175 degrees F. Our first and most obvious reaction to this state of affairs can be summed up in one word: *Insulate.* Insulation, yes, but which of the 150-odd brands of residential insulation should be applied? Should rigid insulating boards, flexible blanket or batt, loose fill or reflective insulation be used? And summer insulation is known to work in two different ways; it may keep much of the heat from entering the house through the roof; but the heat that does enter is trapped in the attic—there to re-radiate onto sleeping occupants throughout the night. From a summer-cooling point of view, bedroom insulation is unnecessary, and in fact restrictive of optimum summer comfort. A light frame construction which heats rapidly and is hot during the day will also cool rapidly at night and thereby provide better night-time conditions than heavily insulated construction. In winter, the rapid response of lightweight construction to heating operates favorably, and during sunny days this type of construction is warmer than insulated construction; but lightweight construction cannot retain heat so well, and is colder than insulated construction on winter mornings. For hot summer conditions, daytime-living areas (living room, dining room, kitchen) should be of well insulated construction to retard the rapid rise of temperatures indoors during the day. For evening-living areas and bedrooms, uninsulated construction would permit more rapid cooling at night.

In accounting for summer-day, summer-night, winter-day and winter-night heating and cooling requirements, compromise-situations are inevitable. Yet we can bring into play many *natural* air conditioning factors such as solar orientation, overhang, ventilation, window-type, and shading devices. The National Association of Home Builders, at their Air-Conditioned Village in Austin, Texas, showed that a *shift* of a house by only seven degrees from South to West practically nullified the benefit of a

36-inch overhang. In one case, the sun pouring through a large unnecessarily exposed window boosted the heat load by 4,200 BTU an hour and increased air-conditioning operating costs by about 15%.

Roof-pitch is another contributing factor which can greatly influence the efficiency of insulation. Research experts assure us that a perfectly flat roof permits up to 50% more heat gain than a pitched roof on the same site. This is due to failure to get a natural hot-air flow out of the eaves of a flat roof. As much as I personally favor the exposed-beam-and-plank, shed-type building, it must be admitted that the gable attic has a better resistance to heat than does the flat-roof design. The plank-and beam roof is difficult to insulate; when rigid insulation is applied directly under the roofing material, there is always the danger that by thus restricting the passage of heat through the roof, high temperatures will build up and increase the flow of tar on built-up roofs. Ceiling insulation is therefore preferable to roof insulation for this reason. When it is realized that overhead insulation may save up to 90% of heat loss, it becomes obvious that for summer as well as winter day-time living, the top of the living space is the main thing to insulate.

Before one can determine the proper amount and best type insulation to install in his house, he must have some notion as to the maximum winter-heating and summer-cooling requirements of his particular region. If a house is to be built in a region of high summer-heat gain, one set of conditions must be satisfied in order to maintain optimum comfort. In regions where extremes in heat and cold occur, a third set of factors come into operation.


Reflective insulation, face up
Heat reflecting surface
ceiling insulation
air-wash above mass insulation
shade trees
pitch of roof aids movement & clearance of warm air.
shield all windows from direct sun
Cool air entering lower vent forces hot air out through upper vent.
vent
INTERIOR SPACE
Double insulation in S.W, W, & N.W walls
concrete floor slab 12" below grade
SUMMER-HEAT PROBLEM
Dark colored, heat absorbing roof
sealed air space between insulation & roof to prevent condensation.
Double insulation toward coldest winds & least sun
Double ceiling insulation
vapor barrier near interior surface
Heat ducts
CRAWL SPACE
insulation under floor
moisture-barrier on ground
WINTER-COLD PROBLEM
Reflective insulation face-up
Roof spray
Dark colored roof
Deciduous trees
soffit vents closed off in winter
Air wash
Double insulation in walls toward winter winds
Double insulation in walls toward summer sun
slab on grade or crawl space with controlled ventilation
EXTREMES IN SUMMER-HEAT & WINTER-COLD

Of the three ways in which heat flows through building materials—convection, conduction and radiation—it is radiation which contributes most significantly to summer heating. On page 3 of the Bureau of Standards circular (listed in bibliography) the following passage appears:

(continued on next page)

more contact

Help! We're ready to move, but we need more information. If anybody knows about cheap tillable land in Idaho (if it exists), please, please write.

Larry and RoxAnne
Grants Pass, Oregon

Maybe you've got a beautiful plan about how you'd like to live, but you're not doing it yet because it's more than you can handle alone. You're looking for other people with the same aspirations.

We offer our services in helping you find the people you need to do your thing right now. Send us a description of your individual alternative, and we'll send you the names of others with compatible interests. Of if you need someone with special skills or assets, we'll try to help you find that person.

Currently we're in contact with potential sponsors, skilled craftsmen and technicians, experienced real life farmers, seasoned communards, dissatisfied school teachers, lost sheep, stray cats and others who are ready to start living again. And we're checking out all sorts of leads on established, embryo and visionary alternatives.

Our motivation is simply to do what we can to encourage the "down to earth" movement, especially on a regional basis. We will support any alternative without trying to make our feelings influential; we just want to see more people getting more of the good things done.

Your contribution of $1.00 or more will help to assure the success of this effort. We'll also publish a bi-weekly newsletter at $2.00 per subscription to help get people together with themselves and with each other.

By the way—people wanting to learn about animal care can get some straight information on almost anything by writing to:

Ralston Purina Co.
Special Products Division
Checkerboard Square
St. Louis, Missouri

The folks at Purina have done more practical research in animal agriculture than anyone else in the U.S. Just try to ignore the hard sell on store-bought feed, and harvest the high quality information.

New Life Exchange
1618 S. Walnut
Bloomington, Ind. 47401

I am looking for a female partner to accompany me to Colombia around January, 1972. A knowledge of Spanish or Chibcha would be helpful, but not necessary.

I'll be close to a degree in earth science by January, but I refuse to enter a technocracy that I think is alien to a somewhat rational approach to life. Colombia offers a relatively inexpensive way of life, a tolerance of different life styles and a chance to explore mother earth. Viva!

Doug M.
Westfield, N.J.

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more contact

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I think that MOTHER readers will be interested to know of the Society for Economic Botany, a group concerned with man's past, present and future use of plants. The Society operates out of the Philadelphia College of Pharmacy and Science and publishes a regular magazine called ECONOMIC BOTANY. Annual membership, which includes a subscription to the magazine, is $11. Applications and dues can be sent to Dr. Ara Der Marderosian, Philadelphia College of Pharmacy and Science, Philadelphia, Pa. 19104.

M.S.
Eugene, Oregon

For many years I've wanted to move to the country . . . but just haven't done it. Finally, I've begun to sell a lot of material things in an attempt to get money to buy a farm. Now I could use some help . . . in the form of information from anyone around Endicott, New York, who lives on a farm or who knows of one for sale.

Joe and family
Endicott

Is there someone out there who can help me find a commune in Hawaii? Any information at all on traveling to and living in Hawaii would be appreciated.

Jimbo
2303 Denger Ave.
Midland, Texas

We are interested in contacting Self-Realization Fellowship members who would consider forming a community for laymen—either married or single. We own 75 acres and would like to form a retreat and community for and with other S.R.F. members truly interested in seeking God.

J and B
Philadelphia

I'm 18 years old, finished with high school and interested in learning . . . perhaps as an apprentice to a carpenter or other craftsman. I'm into organics, transcendental meditation and the ocean, and I'd like to be in a rural atmosphere where I can grow, live and learn. Is there any community or individual out there that I could get together with?

Eric M.
Montreal

My wife and I and a close friend (all in our early twenties) are seriously seeking a rural commune or co-op community somewhere in Ontario. We have $500 or more to contribute, and we'd like to hear from any established communes seeking three additional hard-working individuals.

Eric Z.
Toronto

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> Although air is a very poor conductor of heat, the insulating value of an ordinary air space is rather small, on account of the large transfer of heat by convection and radiation. Radiation is largely responsible for the ineffectiveness of air spaces bounded by ordinary building materials, such as are found in frame or other hollow walls. The low insulating value is often erroneously attributed to convection; but, as a matter of fact, from 50 to 80 per cent of the heat transfer across air spaces of ordinary sizes takes place by radiation. If the air spaces were bounded by bright metallic surfaces, the transfer of heat by radiation would be greatly diminished, since clean metallic surfaces, such as brick, stone, glass, wood, paper, etc.

Reflective metal foil (copper, aluminum, or steel) costs less than 3 cents a square foot and can be easily installed. One should remember to keep the shiny side out (or up) and leave a ventilated air space inside (or below), and at least 3/4-inch between the foil and the surface it faces. A more expensive but also more highly efficient insulator—aluminum clad, accordion-type material known as Infra Multiple Aluminum Insulation—is manufactured by the *Infra Insulation Company*, 525 Broadway, N.Y.C. which will send free samples on request.

About 70% of the sun's heat rays can be reflected from the house by installing a white or light-colored roof. A thin layer of quartz gravel or marble chip, backed by aluminum foil on a built-up tar-and-felt roof is by far the best type of surface for regions suffering a high incidence of summer heat. If a layer of porous, crushed-tile chat or crushed coral is placed over the built-up roof, and *kept wet* during the more extreme periods of summer heat, the house interior will remain cooler for a longer time than if crushed marble is used. When water is used, the roof is cooled by evaporation as well as reflection.

Water-cooled roofs were first experimented with in the late 1930's. At that time the roofs were built perfectly flat and flooded with about 4-inches of water. The system worked amazingly well during the day, keeping out about 80% of the sun's heat. But during the night the warm water radiated heat down into the house. Mosquito-breeding was found to be a further disadvantage of the flooded-roof system. Moreover, the design had to include a roof-structure strong enough to support the great weight of water.

More recent experiments with water-cooled roofs have conclusively demonstrated the effectiveness of water *sprays*. Ordinary rotating lawn sprinklers are perfectly satisfactory, when placed so as to give complete coverage to the roof area. Another method is to use a perforated pipe along the roof ridge from which the water trickles down—cooling by evaporation as well as reflection. Roof-spray tests were made not long ago at the Universities of Florida and Texas. It was found that water spraying keeps out almost 80% of the sun's heat; every pound of water vaporized removes 1,060 BTU of heat from the roof. The temperature of a roof in Texas was reduced 15 degrees (from 132 to 117) after sprays. Although it was found that the water consumption totaled 10-gallons a month for each square foot of roof, this rate can be reduced by 50% if a thermostat in the roof is set to cut in at 100-degrees F.

Systems of water-cooling go all the way back to 2500 B.C., when the Pharoahs of Egypt employed slaves to fan air over large porous earthen jars filled with water. The water, seeping through the walls of the jars, exposed a large wetted surface which provided evaporative cooling. Early American Indians of the Southwest had similar results when they placed porous earthen jars filled with water in the open doorway. The water which seeped through the jar was quickly evaporated by the dry air, thus cooling both the air blowing into the house and the water in the jar. In Mexico the same system is used today, using porous earthen jars called "olla."

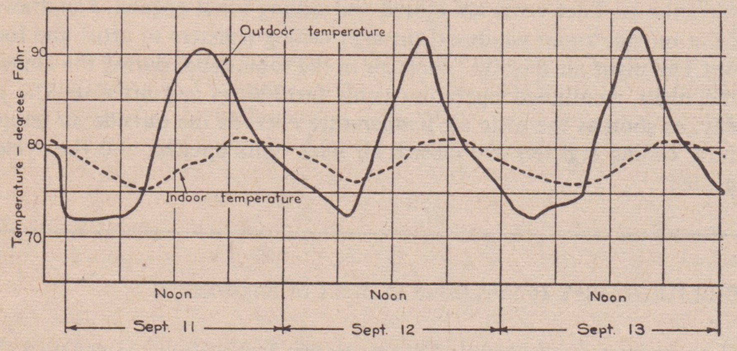
Pools and fountains can also cool effectively when used *indoors*. In Iran, for instance, it is common to find pools of running water inside a house which is built semi-underground to escape the solar heat. Ventilating towers are provided overhead, which catch wind from above the earth and divert it across the water pool and into the underground room. It must have been in Iran that architect Frank Lloyd Wright got his brilliant idea for cooling a house he designed in Mexico; during the summer months the sunken fireplace hearth was filled with water; the down-draft air movement from the chimney circulates over this "pool" and cools the living room. This unusual fireplace has a summer-cooling as well as a winter-heating function.

There is a German patent out for storing cool air in cellars. The cooling capacity of the cellar is increased by filling it with crates of crushed rock, which possesses an enormous capacity for absorbing heat. A powerful fan feeds the cool air upstairs during the day, and brings *in* the cool night-air after sunset.

There are important practical principles that can be learned from those indigenous and oftentimes primitive cultures. For instance, we find that the Arab's tent has slowly evolved throughout the centuries. As a functional shelter-form it reflects and deflects the hottest sun on earth. The Arab tent actually consists of two separate tents. The upper one is white and acts as a reflective layer; the lower one, inside it, is additionally protected by the blanket of moving air in between. As the most basic of all shelter forms, this tent-system also illustrates the two most basic principles of summer cooling; reflective insulation and ventilation. Without ventilation the effect of insulation can be completely nullified and proven inoperative. Insulation and ventilation systems must be designed with each of their respective cooling effects in mind; one system must supplement and reinforce the other. A complete discussion of ventilation-design appears in the following chapter.

This method of night-air-cooling is especially practical in temperate and hot-dry climates, where night-time air temperatures are significantly lower. The temperature of the entire building structure and contents can be lowered to approximately that of the basic night coolness. Then during the day this stored-up cold provides a form of radiant cooling from walls, ceiling, floor and contents.

The attic ventilating fan, or exhaust fan, is the least expensive artificial cooling aid to install and operate. And yet, a properly designed night-air cooling or daytime exhaust system (in combination, of course, with a correctly insulated and ventilated house-shell) can replace in summer comfort the most expensive mechanical air conditioning. In order to maintain fan-cooling competitive in results to air-refrigeration, the fan must be correctly positioned in respect to inlet and outlet openings. In an experiment conducted by Westinghouse Electric Corporation, a 16-inch portable fan was used at a window to suck air *into* a room. In an adjoining room an identical fan was used to blow air *out.* Air temperature in the former case was reduced only 8 degrees, whereas in the room where the fan ejected hot air, the temperature fell 14 degrees. To explain. When the fan exhausts air toward the outlet window it picks up additional air from the room. This



COOLING A HOME BY AIR CIRCULATION

(continued on next page)

more contact

Since we moved from the States to Bancroft, Ontario, we've found nothing but simplicity, peace, good will, clean air, organic foods and beauty. Our native neighbors have accepted us with open hearts; many families have been farming as we are now for over one hundred years.

But some of these people are being forced to retire, and rather than sell their property indiscriminately, they want to sell to folks like us who live on the land for the sheer love of it. They've come to me for help.

So, if you've thought of buying good land near good people, and if you'd like to know more about Bancroft, I wait for your reply. If we work together, perhaps others may find their way back to mother earth.

John Williams
General Delivery
Bancroft, Ontario

We are a co-operatively owned fruit farm in central Pennsylvania, a few miles from Walnut Acres. Our main crop is apples, but we expect some peaches, pears, and smaller quantities of plums and cherries. We aim to dispense with all but organically derived and non-toxic sprays, and we use only natural fertilizers and soil conditioners. Our goal is nutritious, good tasting and uncontaminated fruit, and we put this ahead of size, fancy color and polished supermarket looks.

We're in our first year, and since we have no cold storage or packaging equipment as yet, packing and storage are a problem; however, we will store fruit carefully and plan to pack lovingly by hand as far as is possible. Similarly, distribution of fresh fruit in sound condition is difficult, especially through regular channels. Although we may establish our own delivery route later if business warrants it, initially we will sell our fruit at the farm; we can, though, truck large orders ourselves.

But we're not merely out to line our own pockets. We would welcome individuals and co-ops who want to come out and pick their own; we can custom press on our cider press here if anyone is interested. We don't have any fancy accommodations, but camping would be OK—even pleasant if the weather is good. People who want to come should, of course, contact us in advance, by mail or phone, to find out the details of picking schedules.

Dick Perry
Full Circle Farm
R.D. I, Beavertown, Pa. 17813

I want to make contact with simple folks, moderates, and aware individualists. I am neither apolitical nor revolutionary, not an addict nor a "head," not a religious freak, and not into group marriage or group sex; monogomous legal marriage and privacy strike me as being terrific. But I'm definitely not a puritan either.

I have some resources and workable ideas to contribute to a farm co-op/art colony somewhere in the midwest, and I'd like to hear from like-minded people.

Suzanne Sunday
Davenport, Iowa

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more contact

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We are Bob (21) and Carm (20) looking for homestead land (5-10 acres, maybe 15). Any correspondence with them that are doing in The Canadian Provinces or New England States would be helpful. Need to know about Canadian immigration, and cost and availability of land.

We are also willing to work on a homestead for the experience it will give us. Ready any time.

Bob and Carm
Witchita, Kansas

PLANNED TOTAL ENVIRONMENT is working toward establishing decentralized intentional communities through functional human engineering and progressive sane housing. We think that it's possible to combine radical action and honest, useful research with a pro-scientific attitude that is humanly tempered . . . Ralph Nadar, Portola Institute, THE WHOLE EARTH CATALOGUE and Buckminster Fuller are reasonably independent and seem to get things done. We like their approach and are trying to begin—in the environmental studies field—to follow their lead. Of course, we don't accept government funding or strings-attached contributions.

Right now, we're purchasing a good-sized tract of land, with suitable natural homesites, in upstate New York. There we'll build underground homes and human-potential laboratories out of junked or surplus materials. Stable electrical power will be generated from natural sources, and we've even figured out a way of automatic, electric time-sharing to cut costs.

PTE is having a number of live-in weekend sessions this summer for radical scientists and their friends. Non-verbal techniques (including sensory-awareness methods and basic encounter explorations) will be integrated with video-tape and bio-feedback sessions. $75 per person or $125 per couple (tax deductible) per weekend will cover comfortable shelter, fine home-style food, the sessions themselves and the freedom to be happy in the woods.

Applications and further information will be sent on request. We also welcome thoughts on ecology, bio-feedback research, and the life and epics of the radical scientist. We are all in this together . . . write to us.

PLANNED TOTAL ENVIRONMENT, INC.
GPO Box 620
New York, N.Y. 10001

My wife and I, both 20, recently left Philadelphia to spend the summer on a friend's farm. We're happy here and would like to buy land and build a homestead, but hate to return to "civilization" to make the money. We're going to have to, though, unless we find a place to live and work after we've taken in our first harvest. Is there another way?

J.T.
Mills, Pa.

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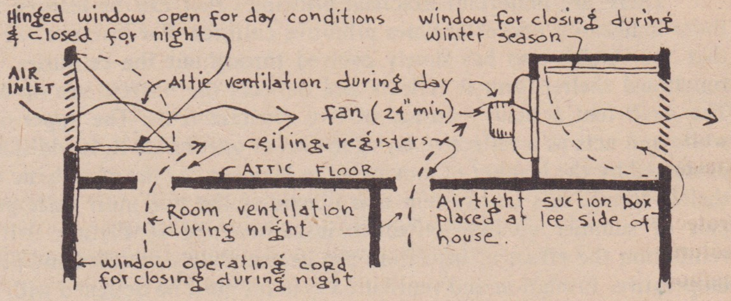
means that a larger amount of cool air will enter the room from the inlet window. It is also the reason why the fan should be placed a distance of twice the width of the window-opening away from the window. The width of a window or opening should be twice the diameter of the fan blades. (A fan will eject from 50% to 100% more air than it would if placed inside the window frame itself.) In regions where the relative humidity is high, and where there is little difference between day and night temperatures (where night temperatures remain above 75° F.), fans will prove less efficient.



Attic Ventilation With Night Air Circulation

The difficult problem of providing a high U-value (or fast-cooling) wall structure for summer, and a low U-value (or slow-cooling) wall structure for winter, can be solved by the use of fans. Cool night air can be circulated between the studding; walls are insulated with reflective insulation of little mass; air inlets are arranged so that they can be closed in winter if desired, making a dead-air space of fairly high insulation value.

During the day all ceiling registers are closed and air inlet vents open. Fan draws air from one side of the attic and forces it out at the opposite side. When outside air temperature drops below inside temperature, the air inlet vents are closed and ceiling vents opened. Fan draws air from outside room windows, through ceiling registers to attic, and forced out. The night air quickly cools air in the rooms and, during the course of the night, continued operation cools furnishings and interior. The next day, as soon as the attic air temperature exceeds the outside air temperature, ceiling registers are closed, air inlet vents opened, and the cycle repeated.

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THE OWNER-BUILT HOME, VOLUME 2, CHAPTER 2

EARTH BLOCK CONSTRUCTION

When the ordinary person hears of "earth block" construction, he may imagine something primitive, something perhaps antedating the Stone Age. Actually, the earth block construction I wish to discuss is as modern as the formica sink top.

One of the really primitive methods of earth-wall construction is "wattle-and-daub," in which mud plaster is applied to both sides of a framework of woven reeds or brush supported by posts or poles. Shrinkage cracks in this thin wall are common, requiring almost constant maintenance.

In the "cob" method, a wall of mud and straw rises without any forms or molds. A "paring iron" is then used to trim the wall true and straight.

In California the building codes, which apparently were devised to protect the industry rather than comfort the home owner or advance architecture, disapprove of all plain earth-wall construction. The "earth-nogging" method, accordingly, uses monolithic filler or earth blocks between wood, concrete, or steel framing methods. A large percentage of new earth-wall construction in California is of this compromise type.

Apart from restrictive building codes, however, years of trial and error in earth constructions have culminated in newer systems of machine-compacted blocks and stabilized soil-cement.

Generally speaking there are two classes of earth-wall construction—puddled and tamped. In the former a molecular aggregation of earth particles is achieved with a liquid medium—a puddling process. In the second the earth particles are compacted by the use of compression—a tamping process. Adobe blocks are puddled (wet); rammed earth is tamped (dry).

Whether puddled or tamped, the earth may be stabilized or unstabilized. The common stabilizer used in the puddling process is bitumen (mineral pitch or asphalt, or some of the semi-solid tars), while that employed in tamping is usually ordinary cement.

Finally, earth may be precast into blocks or cast into form *in situ*. Walls of the owner-built home can, therefore, be puddled or tamped, stabilized or unstabilized, precast or made *in situ*.

One's choice of system depends upon a host of factors, such as design, building code, type of soil, facilities, equipment, and workers available.

It has been found that practically any soil can be somehow used in earth-wall construction. A soil which proves unsuitable for building by one method may be entirely satisfactory for another. For instance, a soil used in a poured adobe wall may shrink and crack, but the same soil may prove satisfactory for adobe blocks, since the blocks are "pre-shrunk" before being placed in the wall. Also in tamped earth methods, consolidation of earth particles reduces shrinkage.

The sandy-clay adobe soil (with at least 30% sand and not less than 50% clay and silt) of the arid Southwest is usually considered ideal for puddled earth-wall construction. It is the clay that provides compression strength and the sand that reduces shrinkage and cracking, by lowering the moisture absorption. Adobe blocks are molded from clay in a "plastic" state, often with a moisture content as high as 30% (15%-18% moisture content is considered optimum). Straw binder is sometimes used to reduce cracking in unstabilized blocks, the straw being cut into lengths of from 4 to 8 inches and evenly distributed throughout the mass. About 150 lbs. of straw should be used to make 1000 blocks (4 X 12 X 18 inches). Very little fiber decomposition occurs in the adobe block; blocks in the Southwest over 100 years old have been found to contain dried grasses in such perfect condition that the species could be identified.

In this country the usual practice is to stabilize, or "water-proof," adobe blocks with an asphalt emulsion. "Bitumul" is the commercial product for this purpose. It is produced by a Standard Oil Co. subsidiary and

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more contact

We are a non-profit group committed to fighting people who are ill-treating animals. We want to end the horrors of seal hunts, stop scientific experiments on animals, improve conditions in zoos, protect grizzly bears from extinction, get bullfighting banned, end cruel turkey shoots and much, much more. Although we've won some, the list of battles we are still waging is endless.

For instance, do you think it's right that baby seals should be clubbed viciously to death: If you're reading MOTHER, we doubt it very much. So join us in our fight. For details of our work write to:

United Animal Defenders Inc.
4908 Swetland Blvd.
Richmond Heights, Ohio 44143

Two teachers, tired of the city, want to start a 200-300 acre intentional community in rural Connecticut within commuting distance of Hartford. While we believe in private land ownership, we'd like to have common farming, equipment, barns and a community hall for meetings and feasts. Our plan is to get a working organic farm going . . . then branch into serious arts, crafts and the like and eventually set up a small but successful alternative school.

We're looking for 7 to 12 like-minded souls- -couples or singles- -with money to invest. Total cost should be between $50,000 and $100,000 to be divided equally in exchange for outright ownership (with a restricted deed to keep out speculators) of equal acreage. We'd like to rap, swap ideas and hear suggestions . . . especially from others who have done or are doing a similar thing.

Marty and Hoby
Hartford

Recorder players and fiddlers: I have a goodly collection of renaissance, medieval and international folk tunes for a recorder trio . . . but no one to share it with.

I am intent upon finding two or three compatible persons to travel with through the U.S., down to Mexico, and maybe someday to Europe, playing park music . . . for old folk's homes, orphanages, prisons, whatever. This is obviously not a money-making venture, but freewill donations and the proper use of inner resources should serve to keep body and spirit together.

Ken H.
Chicago

Does anyone out there know of a small plot of land, within one hour's drive from the center of Philadelphia, that I could use for an organic vegetable and herb garden? Perhaps someone who can no longer work his land would let me do so for a share in the proceeds, or maybe someone has land lying idle and would be glad to have it enriched. An unused corner on a farm or commune would do . . . just anything. If you can help, please contact me through MOTHER.

Helen J.
Philadelphia, Pa.

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more contact

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You are invited to join us if you are young, hard working, healthy (or longing to be that way) and love Arizona's non polluted air, ideal climate, virgin soil, red rocks, green valleys, underground lake and remoteness. We have a going project in action now, and won't turn down anyone who really wants to live in a spirit-led environment of doing and learning. No drugs, dope or dopes.

We have signed contracts for organic produce. Others pick, crate and truck it . . . we grow it. We are a co-op, not a commune, and we like Yoga and everything organic, try to be Christ-like and do not believe in killing men or animals.

We're not in the land-selling business . . . but we have good homesites for $1250 per acre for anything from 2½ to 20 acres for those who want to throw in with us. If you're a climber and you like our location, our ideas and our projects, get in touch with us through MOTHER.

Dr. W.
Arizona

My husband and I are interested in immigration to Australia or New Zealand. He is a recently graduated systems engineer, while I'm working on a teaching degree in English/remedial reading.

We're enthusiastic, but lack pertinent information . . . we'd like to get in touch with someone who has already immigrated.

P.R.
Pontiac, Michigan

I'm a city planner, and it has occurred to me that what I know how to do might be useful to homesteaders, community builders and others who are going back to the land.

Here's how planning works: amass such data as amount of land, what and how much is on that land, how many people want to live there and what they want to put in and take out. Add how much money these people want to spend, what they expect to be doing (i.e. labor intensive vs. capital intensive or something in between) and how much shelter and privacy are needed. From this data comes a set of plans—alternatives—that are as good as the accuracy and honesty of the information and the skill of the planner.

A friend of mine (on Cape Cod) and I (in Newark, N.J.) are both willing to offer our planning skills to people engaged in alternative living patterns. Right now, I seem to be tied to Newark, but if we could work things out both my friend and I (I have a wife and child and am good at odd jobs) are interested in living on a farm sometime.

Anyone who thinks we can help him can contact us. We'll answer all letters and do what we can.

Murph
Newark, N.J.

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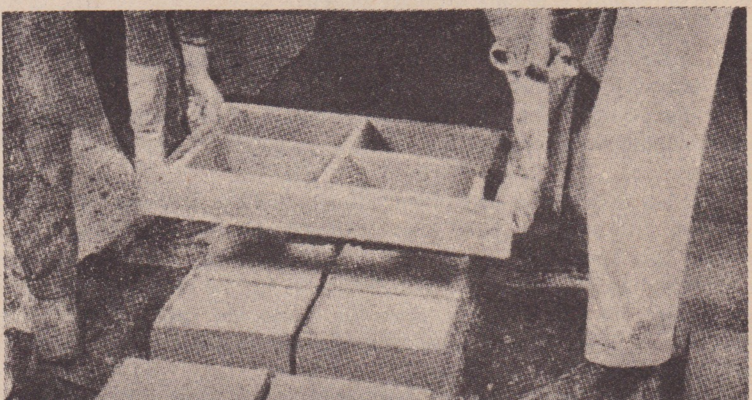
retails for about 25 cents a gallon. It would be less expensive to make an unstabilized block and water-proof it on the outside. According to tests conducted by the U. S. Bureau of Standards, stabilizing blocks does not appreciably increase their strength and the insulation value is reduced, since the density of the block is increased by the stabilizing process.

The Australian Commonwealth Experimental Building Station devised a set of wooden adobe block forms that are as good as can be found anywhere. As soon as the adobe mud is hand-molded into the form, the form is picked up and placed alongside for the next forming. Blocks should be kept in their original position for at least 2-3 days to harden sufficiently for handling. They should then be stacked on edge, with air spaces between, in a sheltered curing area for about three weeks before using. Blocks with a high clay content should be cured more slowly.

Adobe mixing by hand is slow and tedious. Some type of mechanical mixer can certainly be used to advantage. The best type is the pug, dough, or plaster mixer. Concrete mixers are generally not considered satisfactory unless modified with blades or baffles to break up the material as the drum revolves.

Adobe block production can be substantially speeded by using a large rectangular wooden frame one brick deep. The dimensions of its sides are in multiples of the breadth and length of the block. It is filled with packed adobe earth and leveled off. Then the block sizes are cut into the mass of earth with a knife drawn along a straight edge.

Bitumen stabilization is commonly used nowadays to make the earth blocks resistant to water penetration. This type of asphalt emulsion mixes freely with soil of moderate to high clay content, as well as with water. During the mixing process the water carries the bitumen into close contact with the clay particles, and as the water subsequently evaporates it is replaced by the bitumen. Soils with a high sand content (over 50% sand) should receive from 4 to 6% emulsion by weight, whereas fine clay soils (less than 50% sand) require from 13 to 20% emulsion. Also, the sandy soil will require only 10% liquid to bring the material to a workable state of plasticity whereas the fine clay soil requires up to 20%.

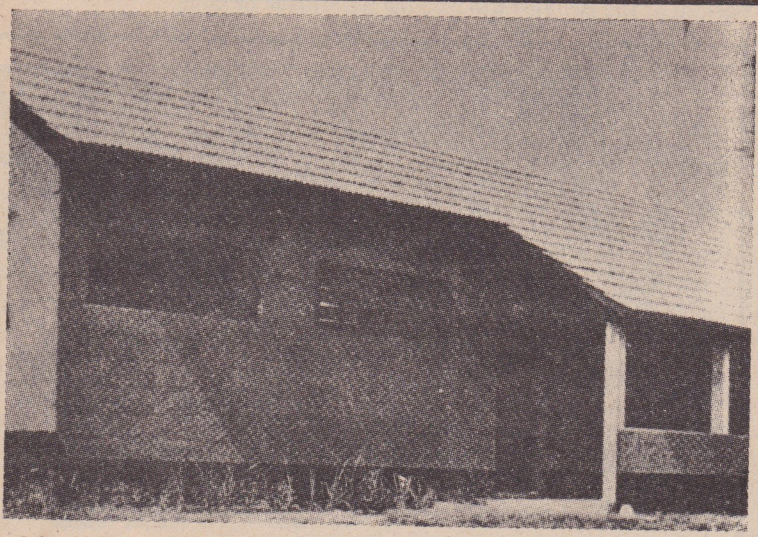


Removal of Adobe Molds (Half-Sized Blocks)

Mortar consisting of the same mix of stabilized earth as that used for making the blocks is recommended for the joints in block construction, so that both will have the same coefficient of expansion. A small amount of cement can be added to the mud mortar, however, to make it set faster and add strength.

At the Research Laboratory, Kansas State College, thorough tests were made on hand-tamped soil-cement blocks. A block structurally far superior to Bureau of Standards testing specimens was made, using a minimum of 7.5% cement to a sandy loam (10% clay) soil. This mix, slightly moistened, was tamped into a form and placed in a moist room for a two-week curing period.

Several years ago, a Johannesburg, South Africa, block maker invented an unusual machine for molding soil-cement blocks. This ingenious "Landcrete Machine" is hand operated, and a 60-pound pressure on a lever produces 1500 pounds against the block. Two men operating the machine can produce enough blocks in two days to build an average-sized Asian home, that is, nearly 1000 blocks per day. Each block is about five times the size of a red brick and twice as hard to crush. Landcrete blocks have the added feature of being made to interlock so that there is no need for mortar in laying them in the wall.



6-inch Thick Landcrete Block Structure, Gold Coast (Ghana)

Structural tests were recently made on identically-proportioned hand and machine compacted soil-cement blocks at Asawasi, Kumasi (Gold Coast). Piers six feet high and 18 inches square were constructed and loaded to failure. It was found that hand-made blocks crushed at 43 lbs. per square inch while machine-made blocks crushed at 121 lbs. per square inch.

Machine-compacted blocks have been found to be structurally far superior to sun-dried blocks as well as hand-compacted soil-cement varieties. So much so, in fact, that it is possible to reduce the outside bearing wall thickness to 6 inches instead of the usual 12 inches. In Colombia, 6-inch earth blocks were used to construct buildings two stories in height. No more than 5% of cement needs to be added to a machine-compacted block.

The soil-cement block machine in use in Colombia (South America) was invented in 1957 at the Inter-American Housing and Planning Center, Bogota. Paul Ramirez, a Chilean engineer and inventor of the Cinva Ram, worked for several years developing a device which would, in his own words ". . . give families of small means a manual tool that will help them build the walls and floors of their houses." The specifications for this tool were difficult to meet. It had to be low-cost so as to be available to house-needy "rural workers, farmers, and other people of small means." It had to be simple to operate and maintain, light and portable. One of the stipulations mentioned in an earlier program was to the effect that the machine should be transportable by burro and repairable in any backwoods blacksmith shop!

The Cinva Ram is a portable, hand-operated press for making block and floor tile, and is available for purchase in North America from the IBEC Housing Corporation, 30 Rockefeller Plaza, New York 10, N.Y. It consists of a metal mold in which damp, stabilized earth is compressed by a piston moved by a hand-operated lever mechanism. As a result of the ingenious lever system, a 70-pound manual pressure produces a compression force of 40,000 lbs., a ratio 20 times better than that of the Landcrete Machine. The blocks are then extruded by a reverse action of the lever and removed to damp-cure for one week. They should be air-cured an additional week before being laid.

When soil-cement mixtures are made, it is of special importance to

(continued on next page)

more contact

I am a college student interested both personally and academically in communal living. I am doing an independent research project on this alternative life style, and am eager to contact anyone who has organized or participated in a commune.

I am particularly anxious to find out about personal motivations for joining a communal society, major problems in organization and maintenance, activities, orientation, and personal reactions to the total experience. Information regarding the community itself (name, location, number, ages, origin, and goals) would also be helpful. I am interested in all types of groups as long as they represent serious attempts at an alternative life style.

If you have participated or are now participating in a communal group and are willing to share your experiences, please write to me. The concrete result of my research will be a comprehensive paper, but no names or other specific details will be used without permission. Any sincere and thoughtful responses will be greatly appreciated.

Elizabeth Pabst
P.O. Box 2574
College Station
Fredericksburg, Va. 22401

Looking for a point of intersection for any folk living sadhana and wanting to share and build it. Happily involved: hatha and raja yoga, loving and creating organic food, woody/hilly setting, and an atmosphere built around children and learning. New Zealand, Tennessee, Oregon or wherever.

Kai
Mt. Kisco, N.Y.

I must get away from the maddening city and back to the peace and serenity of the earth. Is there anybody out there who can help me?

I've been looking for work on a farm or ranch for a long time without success. I haven't got any experience, but I'm young (24), willing, and eager to do any kind of farm or ranch work.

Robert S.
Long Island, N.Y.

My wife and I wish to become self-sufficient organic farmers. Through cultivating a backyard garden and taking a few courses, we've gained some knowledge, but now we need more practical experience.

We'd like to become apprentices to an organic farmer . . . to lessen his workload and in turn learn from him. We'd much appreciate it if anyone interested would contact us through MOTHER. We'll work hard.

John K.
Redlands, California

I'd like to hear from anyone in a position similar to mine (woman alone with two kids to support) who could offer suggestions on how to get back to the land on little money. Is it possible?

Claudia
San Jose, California

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more contact

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Our commune is building a Yoga Ashram on 360 acres of land in southern Florida. About 250 acres are planted with organically grown orange and grapefruit trees and the rest will be used for organic gardening. But we need people to help build and farm . . . sincere people who want to expand their awareness through the practice of Yoga.

By the way, we want everyone to know that we handle Shaklee products and can verify their superiority. It's a personal testament, too, to Dr. Shaklee and his products that when he donated Basic H to the environment people to wash the ducks after the last California oil spill, 80% of the ducks treated with Basic H were saved while only 2% of the ducks treated by Standard Oil . . . and its soaps . . . lived.

Bruce Perlowin
c/o The Children
2316 Madison St. Building No. 34
Hollywood, Fla. 33020

I am looking for a small piece of land with a creek and (preferably) trees, in an area where there is some rainfall. $600 is the most that I can pay.

T.S.
New Mexico

I am 20 years old and tired of superficial relationships and plastic life styles. I long for a simple, beautiful, peaceful existence (maybe on a midwest farm) and someone to share my life and love with. Is there anyone out there with similar ideas and frustrations?

Linda
New Jersey

In the mountains of northeastern Georgia, situated on a sloping mountain road with a view of Lake Rabun and graced by tall elegant pines, flowers of every description, birds of every species and very special people, is a place of rare and exquisite beauty.

Every "ism," every idea is eventually represented here . . . no one is turned away, and everyone is encouraged to talk in perfect freedom about his Guru, Master, faith of philosophy.

Here there is a Barn Lodge with a big table for dining and discussion and places for sleeping, a Sanctuary and a Temple of Silence. And, in residence every weekend all year round, is Seofon, The Prophet, who teaches the flaming, powerful healing of the Holy Spirit.

This is "THE RETREAT," and you are invited for a week, a weekend, a class, a service or a private consultation session. For further information and reservations, please write to:

Mahdah Love and Associates
Lake Rabun
Lakemont, Georgia 30552

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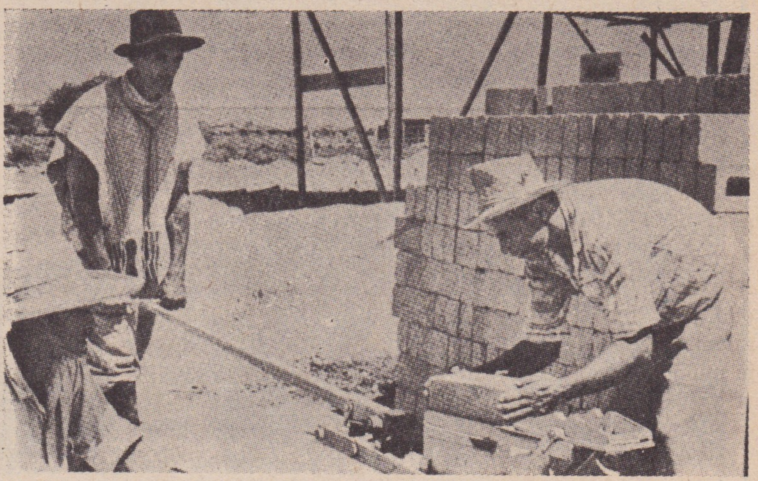
determine exact sand-clay proportions. One simple test is to first fill a one quart mason jar one-quarter full of the soil sample (the earth should first be screened through a No. 4 sieve–six squares per inch). The jar is then filled with water and a spoonful of common table salt added to speed up the settling of the clay. The jar should then be agitated thoroughly and allowed to settle for one hour. The sand and clay will settle in successive layers, the bottom layer being sand and the top layer clay. Measure the height of the sand and divide it by that of the total of soil settled in the bottom of the jar. This will give the percentage of sand.



Cinva Ram Block Production in Mexico

Damage usually occurs through dampness at and just above the ground level of an earth wall. This is particularly so in countries where it may freeze in the winter. Earth-wall protection must be provided either through stabilization, applied protective wall covering or design of the structure itself, i.e., by means of damp-proofing courses in the walls, resistive foundations, overhangs, verandas, etc.

Wherever possible I would recommend a building design and wall system which does not require applied coverings of a protective nature. Even the best covering is subject to occasional repair and constant maintenance. Also, great care must be observed in applying a protective covering, lest it fail to bond to the wall or in use disintegrate with continued freezing and weathering.

The most common mistake in applying protective finishes to earth walls is made when the finish is applied before the wall has completely "dried out." The presence of moisture in the wall, and through the finish, will soften the wall at the point of bondage and failure is certain to take place. Some sort of mechanical bond, such as wire mesh, is always recommended. Magdiel places single strand wires across each layer of wall section as it is being built. Then when the wall is completed, he attaches chicken wire to both sides of the wall, secured by the tie wires previously set. The wall is then plastered inside and stuccoed outside.

For the sake of economy it would be good to dispense with the wire mesh if possible. For a long time I wondered how it was that Africans achieved such excellent results without wire mesh, whereas in this country all sorts of mechanical precautions must be observed to insure a good bond. The answer is that in Africa the proportion of cement to sand is in the nature of 1:12, plus a 5 to 10% admixture to the plaster, whereas we are accustomed to using a 1:3 proportion and about 10 lbs. of hydrated lime to each bag of cement. Apparently the coating of a strong material (cement and lime) over a weaker material (earth) is basically in error. Differences in expansion and contraction are apt to cause cracking, breaking of the bond, and ultimate failure. The 4,000 rammed earth homes built in India (mentioned in the previous chapter) were all successfully protected with a weak stucco composed of a 1:15 cement-sand mixture applied over a cement wash of 1:3 cement-water undercoating bond.

Possibly the most ancient of all wall finishes is Dagga-Mud plaster. A good quality of Dagga plaster will contain enough fine sand to let the plaster dry without checking. The 3 parts of sand and 1 of clay should be screened through an ordinary fly screen. Sometimes lime (1-8%), cement (10%), or even asphalt emulsion (1 gal. to 100 lbs. of dry soil) is added to the Dagga. The wall is first dampened; then a primer coat of plaster is applied. It must be kept damp during the early curing period. Two thin coats are usually applied.

In Southern Rhodesia rammed earth walls are often sprayed with a bitumastic emulsion and, when tacky, are "harled" with clean sharp sand and thrown against the wall. A cement wash is then applied. It has been found that a coat of asphalt-base aluminum paint will bond very well to asphalt-stabilized earth walls. Aluminum flakes in the paint lie flat and overlap, thus preventing leaching-through of the asphalt in the wall. A finish of oil paint can then be applied.

Linseed oil is a very successful and widely used protective covering for earth walls. Two or three brush coats should be applied, followed by one or two coats of household paint, if desired, for interior finish.

"Dusting" of interior walls can be eliminated by first applying a home-made waterproof glue. This transpiration application is made of 6 parts cottage cheese and 1 part quicklime, with sufficient water to make it flow smoothly. The use of cottage cheese for glue sizing may sound a bit odd, but it must be remembered that most of the original research on rammed earth finishes (especially by the University of South Dakota) had in mind inexpensive construction for farmers. This research group even developed a buttermilk paint; 4-1/2 lbs. of white cement to 1 gallon of buttermilk. Two coats should be applied over a glue-sizing primer coat.

And experimenters at the University of Colorado had the grain farmer in mind when they developed a flour and water covering; 30 lbs. of flour and 50 gallons of water are cooked to a creamy consistency and then added to a mixture of the same soil that is used in the walls. Then more water is added to thin it down.

Professor Kirkham's bulletin describes the type of "brush stucco" he developed for both inside and outside treatment of his $887.80 house. His two-coat stucco is very cheap, does not crack, and is absolutely waterproof. It should be applied with a stiff brush.

> Place a cake of laundry soap (stearic acid soap) in a three gallon bucket and fill the bucket with cool water. Then take the cake of soap in your hands and rub the soap (as you would to wash your hands) until the water becomes quite soapy. This soapy water is used instead of plain water in mixing the stucco. Next, place four pint cupfuls of portland cement (4 lbs.) into another three gallon bucket and to this add four pint cupfuls of fine sand. Then, using a small wooden paddle, stir until the cement and sand are well mixed. Then add the soap water and keep stirring until the mixture becomes a stiff paste which is applied directly to the wall.
>
> . . . After the paste has been on the wall for 24 hours the surface is painted (washed) with a copper sulphate solution which is obtained by adding a quarter of a pound of copper sulphate crystals to three gallons of water.

BIBLIOGRAPHY (books listed in order of importance)

How to Build Your Own Home of Earth: Kirkham, Oklahoma A & M, Stillwater, Okla., Nov., 1946

Building Materials and Structures Report: B. M. 578, National Bureau of Standards, 1941

Paints and Plasters for Rammed Earth Walls: Patty, Dept. of Agricultural Engineering, Brookings, S. D.

Adobe Construction: University of California, Bulletin 472

more contact

My husband, my sister, and I are about to take a needed break from our work with a group home for emotionally disturbed adolescent girls.

Together with our son, we'll be in San Francisco for most of August and we need a two or three bedroom apartment to sublet. We are responsible, reasonably neat, and we'll take good care of the place.

If you can help us with a place to live, or if you think that our experience with the group home might help you, please get in touch.

Sara Hozany
3073A N. Humboldt Blvd.
Milwaukee, Wis. 53212

The third annual gatherin' of the Albert E. Brumley HILL AND HOLLOW FOLK FESTIVAL will be held in the sunswept hills of the Ozarks at Powell, Missouri, September 24, 25 and 26, 1971. We expect more than 5,000 people from up to 20 states to participate in one of the largest and most popular festivals of this kind in the Midwest. All lovers of native arts, crafts, folklore, music and the great outdoors are invited to attend.

There is no admission charge, but exhibitors will be charged a $4.00 entry fee. Only quality art, crafts and products will be accepted, and all entries must be home made or hand crafted. For more information write:

Hill and Hollow Folk Festival
Powell, Missouri 65730

A new, up-to-date list of inexpensive books on man's environment has just been prepared by the SAVE THE EARTH INFORMATION CENTER. Subjects range from nature and conservation to pollution and urban squeeze, from outer space to your own back yard.

The list is available free to anyone who sends a stamped, self-addressed envelope to:

SAVE THE EARTH INFORMATION
CENTER
2244 Lee Rd.
Cleveland Heights, Ohio 44118

We four have recently bought a 25 acre farm in Oregon with 12 tillable and 12 wooded acres and two houses . . . one large enough for two families, and the other suitable for one family.

We want to hear from anyone who longs to be as self sustaining as possible and who would like to live co-operatively and share ownership of the land with us (several thousand dollars would be needed).

We have started a large organic garden, are in the process of buying sheep, and hope to sell herbs, strawberries and sheep. But our final plans remain flexible.

Justin, Merle, Danny, Marg
Cottage Grove, Oregon

(continued on next page)

more contact

(continued from preceding page)

We are Seth (24), Syl (26) and Jake (1). Seth did geology in college, worked in oceanography and taught high school science. Syl is an artist. So's Jake.

We're looking for an intentional community (no group sex or drugs) with a trade or craft centered economy. Seth would like to learn carpentry, cabinet making, blacksmithing or some other skill from one who is very good at it, loves doing it and would enjoy teaching it to an eager learner. Syl wants to create small things—out of natural materials—to use, wear, play with or just carry about in a pocket full of nervous fingers.

We wouldn't mind working at outside jobs on a limited temporary basis, if necessary; but our daily work must be an extension of our creativity, not a consumer of it.

We're vegetarians and while we aren't very experienced, we would dig raising animals for milk and eggs and we want to get into organic farming. Farming on a cash-crop basis, though, doesn't appeal to us as a first step.

Besides doing, we want to focus on being. We're into Yoga and would like to continue on the Way. We hope that there would be others in the community who practiced spiritual disciplines or who at least were in sympathy with our efforts.

We want to be a family within a larger family, determined to make for itself a sane and healthy environment in a spirit of joyful cooperation. If you are interested in getting together to start a community, or if you have one already established, please write soon. You'll get an answer right away.

Seth and Syl
Bronx, N.Y.

Am looking for an organic farm to work, live and learn on . . . hopefully Colorado or California. Anyone know of a place?

Roger M.
Lansdale, Pa.

We are a young couple (both 28) recently settled on the west coast of Florida in a big, rambling old house on two acres of rural land.

We planted a garden, but had little success due to severe drought and poor land; we've started a promising worm ranch and hope, eventually, to establish a rabbitry. But we have much to learn to make our land self-sustaining. We'd like to hear from others in our area who have had experience farming in this climate.

We're also interested in community living, but don't know of any existing near-by groups with an orientation toward organic gardening and crafts. We'd appreciate hearing from such groups or from individuals with advice on farming this land.

Ted and Vikki
Clearwater, Fla.

Last August we left the city rat race and our "good" jobs (Sam was an engineer for 20 years) for a life in the country. We love tending to the growth of our plants, animals, children and selves in this beautiful area (Sierra foothills of northern California) which is still relatively unpolluted by smog, noise, sewage and people.

To earn money, we opened a real estate office in our home, and we try to "work" just enough to buy food and supplies for our farm. Among other things, we are organic gardeners, health food nuts, and we dig Hermann Hesse.

We're interested in helping people like ourselves to find land here. If we can do that for anyone, please contact us through MOTHER.

Joyce M.
Dobbins, California

Having decided that the state college system here doesn't have much to offer me, I cut loose. Now I'm working in a convalescent hospital trying to save money for homesteading.

I've found that I really dig old folks. But there is a problem . . . being a firm believer in natural foods, I can't stand to see the crap that's being fed to them and all the drugs that are prescribed for them. Does anyone know of any enlightened "homes" or hospitals that use natural foods and vitamins? How about intentional communities? Are they doing anything for and with older people?

Also, does anyone know of schools or courses dealing with midwifery, perhaps in Alabama, Colorado or just anywhere?

Nancy B.
Carmichael, California

My wife and I want to move, with our 14-month-old daughter, to the Alberta, British Columbia area as soon as possible. We wonder if any MOTHER people could give us the names and addresses of communes up that way.

I am an artist, sculptor, woodcarver and carpenter, and I've also done some leather work. My wife is into weaving and macrame, and we're both hard workers. Our daughter is just into being a sweet little kid.

Please write soon if you can help.

Leonard and Leona
New Jersey

We're city born and bred, but we've had a taste of the earth and have been trying to live naturally in a 2½ room NYC apartment . . . a nice idea, but it just don't make it.

We both have sketchy backgrounds in various fields, and between us we've worked as: Head Start teacher, social worker, cab driver, administrative assistant for Southeastern Asian Peace Corps projects, counterman, nurseryman, teacher for urban groups, secretary and publishing assistant.

We'd like to hear from anyone with suggestions or leads for living and working on the earth with brothers and sisters willing to tolerate a couple of inexperienced hands, three cats and an old but (usually) reliable camper. And if there are others in the city with a similar bent, let's get together and see what we can come up with.

Frank and Ricki
New York

I've just returned to my Indiana home to begin a one to two year parole after my release from a Federal Reformatory (I got there for violating probation which, in turn, I got for violating the Tax Act concerning grass).

I am single, 21 years old, free of debts, and am planning and building for my future as a farmer/back-to-the-earth dweller. I want someday to try my hand at rabbit-raising and subsistence farming.

Right now, I have to stay in Indiana, but I'm hoping that I can get some help and encouragement while I am on parole . . . I believe I may need these two things in order to avoid being caught up in the middle-class American rat race that I was into before and that I am now being programmed to return to.

Can anyone point me in a good direction toward this very hopeful future of mine? Is there someone in Indiana or nearby states who would correspond with me while I'm on parole . . . if for nothing else than to exchange ideas so that I can keep my mind and soul on the right path . . .? Any kind of help and encouragement will be most gratefully received.

Larry Libra
Indiana

We are BRIGHTSIDE, a commune of seven people, ages 18 months to 85 years. We're a family reaching out for more people, and we'll continue to reach out until we see a family of man in existence.

Being a commune isn't easy, but it's easier than doing nothing to resolve the conflicts of the world. Our experience shows us that communal living is the most rewarding of life styles. It offers freedom, individuality, security, gratifying activities and the greatest of learning experiences . . . life.

We eat, sleep and are active together in a common direction. Each member not only participates in group activities, but also develops individually in the areas that interest him . . . to the delight of everyone. One of our main activities is folk singing—wherever and whenever we can—but we also sew, paint and do all manner of things.

BRIGHTSIDE has a 100-acre debt-free farm (half woods, the rest for cultivation and pasture) with a house, apple orchard, cattle, dogs and cats. Our projects include the enlargement of our house as needed, central heating, a new well, farming, a free school, BRIGHTSIDE for unwed mothers, musical events, theatrical events, workshops and the development of the dreams of BRIGHTSIDE individuals. Our real project is the development of people as happy, full, creative, active, divine creatures. Communication is the password, creativity the key.

Can you dig it? Please write to us through MOTHER.

BRIGHTSIDE
Quebec

I am a long-haired, free thinking photographer with an interest in settling on the mainland somewhere (Michigan?) where I can farm, do my pictures and not bother other folks.

It is really important to my wife and me to find a place where we can buy some land (it's too expensive in Hawaii) and work to get along with our neighbors. Anyone have any ideas for us?

Curt
Hawaii

The Okanagan Wilderness School is a school without philosophies or ideals . . . the only emphasis here is on wholeness—from the ground up. We feel that the public education system is designed to train a child for eventual exploitation by industry and that free schools and commune education often suffer from diversity without unity, overpopulation and a lack of mutual responsibility. In fact, to create any deliberate set-up for learning is no different from creating any other form of fragmentation. Only in a whole, undisturbed environment is it possible to live without the conflicts which ultimately destroy freedom and tear lives into isolated activities that lead people further away from essential, ever-changing "moments of being" in which all forms of life exist in an organic whole.

We do not carry on a program of "teaching" since we feel that teaching, as such, has nothing to do with learning. We're now using the term "Family Centered Education". . . obviously possible only where the family is occupied with such fundamental things as growing and preparing food, housebuilding and making both personal and household needs with intimate, artful care.

We feel that aloneness- -in a peaceful environment- -is vital to the development of the kind of sequential thought necessary to any process of self-knowing. Our school is located so as to permit exclusion of social and technological illusions and to provide protection from immediate pressures and perverse influences. At the same time, our staff and environment are able to provide children with answers to virtually every side of every question.

Right now, we're giving more and more attention to early problems—those which grow into the problems often attributed to repression alone. In addition, we're very concerned with the effects of wide-spread prenatal injury . . . caused by drugs, food additives, biocides, flouridated water, radiation, poisoned air and the plastic American diet.

There is no minimum age, but we don't take boarding students over the age of 12 unless the child himself has made the decision to attend. Tuition is from $800 to $1800 per child, per year, depending on what the family can afford . . . scholarships are needed for those unable to meet the minimum. A tuition fee of $25 per week is charged for each child attending on a trial basis.

Tom Anderson
Okanagan Wilderness School
Box 41
Keremeos, British Columbia
Canada

I'm a former art teacher very much into joining—or possibly creating—an alternative living situation in or near the Southeastern Pennsylvania Wasteland (I'll move farther if necessary).

I'm interested in organic farming, vegetarianism, reading, creative writing (poetry, music), some privacy, satisfying hard work, rewarding communal ties . . . and I'd like to learn more. Can anyone help?

Dave
Unionville, Pa.

I'm a mother, geologist and admirer of deserts . . . wanting to contact a man who possesses thirty or more years, intelligence, education, humor, an interest in reality and complexity and subtlety, enough ego to answer this CONTACT and an admiration for deserts (please state why).

J.K.
Minnesota

I'm looking for sources for cable TV and radio programs in the Columbus, Ohio, area. This medium has tremendous potential for ecological head changing, even if only in one city.

Anyone who knows anything he'd like to share and has time to spare could make tapes for the audio, send in scripts or come in and tape TV shows.

The system is really new and can't afford to give money to contributors yet, but I would like to hear from anyone who has something to say that others should hear.

Barry C.
Columbus, Ohio

We have plans to organize a Northeast Regional Clearinghouse (or Free Peoples' Exchange) for free schools, communes, urban and movement groups, etc. Our first step is to gather information.

If you're interested, please write to us and tell us (add comments too): 1) What resources (people, skills, equipment, ideas) your group needs help in obtaining . . . be as specific as possible as to type, number, dates needed. 2) What resources (again, be specific) you'd be willing to share with other groups. Under what restrictions? 3) Who are you? What is your address, phone number, affiliation and so forth?

We hope to co-ordinate responses by publishing the first issue of a regional inter-communal newsletter and directory of resources and needs . . . we'll go from there.

Arrakis Family
RFD 1
Jeffersonville, New York 12748

Due to some karmic benevolence, I can get Aladdin kerosene lamps to sell at a 30% discount. For those who don't know, Aladdin lamps give the best lighting I've heard of for those who want to avoid the electric society. They give a cool, bright (about 75 watts), non-fire white light for very little kerosene.

I also sell organically grown fruits and nuts at quantity prices. Price lists available.

Ward Star Store
Box 213
Ward, Colorado

For some time now I have been studying about the medicinal values and uses of herbs. Now, I would like very much to become an herbalist. Does anyone know of schools or colleges that offer training in this field?

Leigh
Tony Pony Farm

We'd like to hear from other friendly, loving souls who are interested in doing a free-school-for-our-own-children, arts-and-crafts, and organic farming thing somewhere far away from hassles and intolerance.

Our two year old needs other free children to grow with, and we're ready to work hard and play hard to build a spiritually happy community of little and big people. Maintaining separate families, but sharing work and joy seems ideal, and we have some money saved for the time when we find friends to go with and the right place to be in. Meanwhile, we're open to ideas, particularly about location.

Glenn, Lynn and Gannon
Rochester, Minn.

I am a young mother of two (ages 4 and 1), and I want to stop struggling in a social structure and environment that is too far removed from what is natural, moral and fulfilling.

I know something about weaving, sewing, knitting, camping, animal and child care, sharing and loving . . . I'd like to learn about much more. Is there a place around for three happy, eager souls? We want to contribute something real.

Mary K.
Schenectady, N.Y.

I'm looking for an alternate position to fulfill my 1-W (C.O.) draft classification requirement. I've been working as a surgical technician in a hospital in Athens, Ohio, for the past fourteen months, and I recently resigned. I'd like to do something of relevant worth so I don't have to mark time on an unproductive one-way street.

I've had two years of college with a major in theater and a minor in English, and I enjoy working with people . . . any people. I lean toward rural life and shun large cities whenever possible, but I'd accept a position in a city if it were necessary. I have some talent and a lot of enthusiasm for farming, organizing (e.g. free stores, solid waste recycling programs) and writing.

Money is of no great concern, although my future wife and I will need some sort of subsistence. Nor am I committed to a vocation . . . what I'd really like to do is explore until I find one.

S.K.
Athens, Ohio

TEL TEN CLUB is an organization concerned with what is happening to people and the environment. We seek solutions to environmental problems and do things to get those solutions working quickly.

For example, we now offer Bio-Life, a Leonardite shale from New Mexico that is extremely high in humic acid content and that will restore natural fertility to ANY soil in one season. And there's Tri-Ti-Cale, an open-pollinated cross between wheat and rye, which produces unbelievable yields of high-protein grain. We've also found STAMINA BASE, a natural liquid formulation that has reportedly cured Dutch Elm disease, corn blight and many other by-products of man's chemical tamperings with Mother Nature. With STAMINA BASE, soil or plants can be de-toxified in days.

Our STAMINA FOODS (term derived from Dr. Albert Carter Savage's Standard Mineral Availability) will soon be available with one to five stars on the packages to indicate that the particular fruit, vegetable or meat was grown on soil which contained no toxic residues and which produced wheat grass bearing (depending on the number of stars) 20, 25, 30, 35 or 40-plus percent green protein.

Membership in TEL TEN CLUB costs $10, and with it comes material on how to register other members and so earn heavy bread helping to build TEL TEN. For membership or information, write to:

J.C.
1C-3
TEL TEN CLUB
Box 564
Paducah, Ky. 42001

(continued on next page)

more contact

(continued from preceding page)

We are two parents and four children looking for other families near us who want to form a rural co-op community and "school" in Appalachia or the Ozarks. We intend to use the summer to visit these areas and the winter to organize, plan and save. By early spring, we intend to be on the way to a saner, healthier, more creative life.

We're especially interested in getting together with people who have skills and ideas that would contribute to self-sufficiency and reduce dependency on the 9-5 trap.

We want our children to learn about life and beauty and creativity. We want to laugh and love in the sun and the woods. We want to grow, eat whole foods and work toward being total people again.

If there are any other families in our area who want the same things, please contact us.

Joe, Bette, Joe, Chris, Jeff and Jenny
Roslyn, Pa.

I am a 35-year-old corporation executive about to drop out of the rat race, and I am looking for a companion for a 1972 canoe trip through interior Labrador . . . needle forests and lots of lakes. Reader and admirer of Thoreau would be welcome.

Bill C.
Brooklyn, N.Y.

I am a 19 year old girl who wants to live on a farm, preferably in Wisconsin, though a nearby state would do. I want to hear from fairly straight people of any age with whom I would be able to share ideas and interests. Letters of constructive advice would also be greatly appreciated.

Kathy
Madison, Wis.

We, the members of Unity House, own a stretch of lush, tropical jungle next to a tranquil river in Central America on which we are establishing an agriculturally oriented colony which opens this month. Investment shares for potential members are $400 per adult. Children are, of course, welcome. Interested people should write to:

Unity House
P.O. Box 428
Belize City, British Honduras

I am on my way to becoming a potato, and am interested in finding others in similar states who might be interested in starting a garden.

Babo
East Rockaway, N.Y.

I have land for sale in the Missouri Ozarks—with and without buildings—suitable for people who want to commune with nature. I'm a private owner and would be willing to finance you.

Ivan S.
Willow Springs, Missouri

My son and I would like to LEASE 30 or more acres for 25 years somewhere in the Ojai-Santa Maria-Solvang area. We only need water . . . buildings would be nice, but unnecessary. If we can get watered land for a reasonable lease fee, we will do all the necessary building and, when the lease is up, the owner will have the buildings and any planting that we've done as an extra bonus.

Through years of experiment, I have developed a method of soil, water, and sun culture which could make even the Indian Reservations fertile. I would like to train boys and girls from various Reservations in this method by taking three or four each year in a co-operative venture through which they would share in profits and accumulate knowledge in return for their labors. (Our goal is self-sufficiency so far as food is concerned.) And I would like to revive some old Indian crafts—pottery, bread baking in a horna, rug weaving, spinning and dyeing.

If anyone has pertinent information or a lease to offer, I'd appreciate hearing from them.

Lynn the Rom
Pacoima, Cal.

SOS to city dwellers, especially Milwaukeans. I've just moved from the country roads of Vermont to the city streets of Milwaukee, and I'm not finding the transplant too nourishing. So far, I've gotten my best leads on open-air markets, warehouses, and any kind of real alternatives from the very friendly elderly women I meet on the bus and at fruit stores.

If anyone can give information on survival in the city, tricks to keep sane and viable alternatives to high consumption, please get in touch. Also, fellow Milwaukeans, contact me through MOTHER. I am interested in collective buying—foods, art supplies, etc.

Pat W.
Milwaukee, Wis.

I know that there are many people interested in the upstate New York dairy country, and I would be more than willing to extend whatever information or general impressions I have to anyone who might write.

F.D.S.
Norwich, N.Y.

I'd like to buy some land with a small group of people (no more than 25) and grow vegetables, work at crafts, eat wholesomely and live well. I want to relate to the land and the people in the community in a mutually beneficient way. Ideally, we will be vegetarian, live as simply as possible, use one big house for meals and workshops and have lots of domes or tipis or yurts or tents. I'm a poet, and it would be nice if we could get together a magazine of poetry, art and photography in order to raise money for land, tools and emergencies.

Right now I'm working and saving my money for land. More importantly, I'm looking for people (not necessarily Jewish) who are interested in forming a community based on parts of the Judaic tradition. I don't envision a religious community based on belief in God, but a living community based on the Judaic way of life. If you're interested, please contact me through MOTHER, and we'll share more specific ideas.

Barbara M.
Lynbrook, N.Y.

Our fellowship—the Opie Mountain Citadel—is commited to spiritual quest and growth, unbound by creeds and doctrines, open to truth wherever it may be found.

We are concerned with the search of the individual and his own growth, and with the re-dedication of all to the deep inner solution of the problems that beset mankind today.

Since we began, three years ago, a few of us have shouldered all of the expense, done all of the work, and used our own homes for the endless stream of seekers. Now there is a definite need for a center where our efforts can be pooled and our resources and sharings made more widely available to more people.

You can help us if you, too, are concerned about the demoralization and degeneration of human life and spirit on this planet. Give in any way you can . . . money, supplies, ideas, time, energy—everything is needed!

Opie Mountain Citadel
P. O. Box 25
Wendell Depot, Mass. 01380

There's a new community forming around experimentation with judo as a means of exposing property to a regular test of sovereignty. The community is built on the aboriginal premise of man's vulnerability to nature's rhythms.

The people already engaged in the experiment believe that a civilized-aboriginal society is the only kind capable of bringing men and women into equal contact with the rhythms of nature. They also believe that a culture with a built-in struggle is best able to survive the seventies and is best capable of specifically and significantly aiding the cause of social justice. For details, contact:

Sherman Chickering
51 Lake Place
New Haven, Conn.

We're looking for families with young children who'd like to join us in traveling to Mexico—and perhaps, beyond—to find farmland. Land ownership is now possible in Mexico for people with dual citizenship but if we can't find suitable acreage there we hope to go on to Costa Rica or Honduras. It's even possible for North Americans to get work in Costa Rica, if really necessary.

My husband has been into organic farming for a number of years and his experience would make the planting of crops relatively simple. But we need others to share the work . . . and joy.

We'd like to purchase a sizeable amount of land in order to sustain us and, perhaps, grow surplus to sell. We are followers of the macrobiotic way and all other ways that lead back to our Creator and we feel that there will be a growing need in the future for wholesome foods.

We hope to grow rice and almost any other grains, vegetables, and fruits that can be grown. We plan to subsist on tropical fruits and plants until our crops yield. Food is very inexpensive south of the border.

We feel that purchasing land and raising our children in Central America's warmer climate will be easier—with less chance of harrassment—than some of our communes have experienced.

If any interested couples would let us know, we'd be pleased to hear. We're planning to leave in one to two months' time.

Doreen and Shig
Levcadia, California

Every truth has its instrument. Appalachian studies are now underway in schools both inside and outside the mountains to serve—in varying degrees—the truth of Appalachia. What we aim to do is to further this educational development with a thorough-going Appalachian school.

We will be a fully accredited undergraduate center of Antioch College, concentrating on the fields of social science and education. Unlike the conventional extension centers of universities, this center will develop its own curriculum and direction. Our endeavor is unique in that the program will be built from Appalachian staff and students for the purpose of coming to grips with Appalachian problems. We also feel that by studying Appalachia, we can use it as a prism to see many of the problems of America and the world.

We have a staff and consultants, a curriculum, some funds and a start on our library. But we're a long way away from our immediate goal.

In order to get our Center going by September, 1971, we first need 60 students . . . with roots in Appalachia . . . and we're going to have to recruit them personally. Also, students in our program will be working as well as studying, and we're confronted with the fact that there is an economic depression in Appalachia (when America has a recession, Appalachia has a depression). We haven't been able to find the needed jobs. As a result, we're trying to establish co-operative institutions that, while they may not be totally self-supporting, would at least be solvent enough to provide a part of the salaries for students who worked in them. Among other things, we envision a book store, movie theater, food co-op and day care center.

All of this requires money. In addition to recruiting students, we need to renovate buildings and purchase equipment and initial stock. We understand the seriousness of asking for assistance at this time and would not do so unless we felt that together, the Center and its backers have the opportunity to change the history of an Appalachian people struggling against a society that has branded them as "yesterday's people."

Robert Snyder
Director of Appalachian Affairs
Southern Appalachian Center
630 4th St.
Huntington, W. Va. 25701

We are a dentist and a social worker (into early education) with two children (2 and 7) who would like to join a commune or co-op community within a 25-mile radius of Ovid, New York. We want to continue with our present jobs and to contribute what money and skills we can to the commune. If you are interested in starting such a venture with us or if you know of a group that we could contact, please get in touch.

Sara and Aaron
New York

Looking for other people who want to form a work commune on Long Island. Interested in people who are creative, have a high regard for what technology can do for us, and enjoy sharing their experiences with others.

My plans include building a communal homestead of interconnected geodesic domes. Let me know what you think.

Wendel
Hicksville, N.Y.

I am seeking an alternative-life-style community where I can teach young children. I have a B.A. in Elementary Education and a minor in Art.

Betsy H.
Tampa, Fla.

We're 26 and about to quit working FOR others and to start working FOR ourselves and WITH others. Want to try it on our own with good food, good people, good land, good living.

We'd like to start a small village community in northern California, or one of the northwestern states, with private homes for each family and shared labor, costs, food, property, affections and friendship . . . organic living and growing (we're not vegetarians, though), no drugs, lots of natural highs. Please write soon and let's get it together.

John and Judy
Santa Rosa, Calif.

We are distributors of Amway non-polluting cleaning materials, and we want to clarify some of the comparative statistics we've seen on the phosphate content of laundry products. To arrive at a true percentage rate of phosphate content, it's necessary to determine what goes down the drain after each use, not just what's in the box before us.

For instance, a user of Amway S-A-8 laundry detergent needs only ¼ cup per washload, compared to the 1-1½ cups per washload he'd need of other leading detergents. Therefore, less Amway goes down the drain per load. The same is true of the Amway fabric softener, the dishwashing liquid and so on down the line of products.

Amway also markets a no-phosphate S-A-8 which we consider the best of its kind. Please get in touch with us if you have any further questions.

Gene and Jo Malicki
2207 Pelham Ave.
Baltimore, Md. 21213

We are in the process of building a planned community about 35 miles outside of Edmonton, Alberta. Right now we have 100 acres of rolling, partially cleared land bordered by a river and access to some old railway stations that can be moved to provide very inexpensive starting housing. As far as personal assets go, we have some skill in crafts and several of us are equipped to handle gestalt encounter groups, yoga meditation and massage classes.

We envision a total-environment community whose interaction with the city could supplement our source of income and provide a benefit of city dwellers seeking a new life style. We're looking for people who wish to contribute their talents and energies toward such a vision. Anyone interested can contact us through MOTHER.

Ken M.
Alberta

Saving money to buy land . . . feel I must get away and live a cleaner life closer to mother earth.

I'd much like to hear from others in or near Indiana with similar thoughts. Maybe we can get together and pool our resources. If you think so, please write . . . let's exchange ideas.

Bob W.
Anderson, Ind.

My man and I dream of moving with our family—that's five or six couples with children—to our own island. What we'd like would be a small place, fairly reasonable and relatively obscure, with water and no hostile natives. We've heard rumors of inexpensive islands in the Pacific, but have no idea to whom to write. If anyone can help us find out how to buy a territorial island—or a nice little island just anywhere in the world—please let us know.

Tom and Eileen
Corvallis, Oregon

In exchange for room, board and salary, my two boys and I need a young lady or a couple to care for us in our rural Massachusetts home. Life here is leisurely and quiet: lots of land, a barn for animals, craft equipment, etc. Write for details and a chance to talk.

Ted H.
Harvard, Mass.

I'm looking for either a commune that needs people, or a group of people interested in forming a communal or co-operative living situation to grow their own food, make their own clothes . . . make things in general. The place must be in Southern Illinois, though, within commuting distance of Carbondale.

In the meantime, I'm looking for a house, on at least an acre, to rent in southern Illinois. It doesn't have to be in excellent condition, just fix-uppable.

S.L.W.
Urbana, Illinois

With the growing interest in self-awareness and environmental change, the EREBUS media shop is expanding to include a total craft, tool, raw material, book, and possibly organic food outlet to be run on a cost plus basis.

Along with the supply outlet, we are setting up a free community workshop. For only the cost of materials, all tools and instruction will be available for work in pottery, weaving, waxworks, photography, film making and most other basic crafts. An ecology workshop, yoga center, film series, theater, dance program, and even a natural foods restaurant are all being discussed.

Due to our desire to make this a service rather than a profit oriented endeavor, we're urging all interested people to send us catalogues, wholesale information and—mostly—ideas. An effort by the people, for the people. Let us hear from you.

Ken Cadigan or
Herb Gideon
EREBUS
52 Center St.
Portland, Maine 04101

The Hyde Park Co-op food store, close to the University of Chicago, sells organic produce . . . when it can. Lately, the Co-op has been having trouble getting and selling organic produce because of the high cost of obtaining and transporting it (often, California is the only possible source). Do any MOTHER readers know of organic food growers who might help out? If so, please contact:

Mas Yukawa, Produce Manager
Hyde Park Co-op
1526 E. 55th St.
Chicago, Ill. 60615

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more contact

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If you want to know about Alaska, I'm your man . . . I've lived here 13 years. I haven't seen the lower 49 in all that time, so I can't draw comparisons, but I'll try to give the straight skinny to anyone who wants information. I can tell you that Alaska is totally, completely and absolutely different from any other place I've ever lived.

One problem for land seekers: there was talk of the Alaskan native land claims being settled early in 1971, but the time has been extended for six months. And after that, I'm sure there won't be homesteads. It would be pitiful if someone moved up here to start homesteading and then found out that it was a thing of the past.

Another thing: last year I was dismayed when the State and the city of Anchorage paid college kids to hassle people coming into Alaska across the Canadian border. I don't think it will happen again, but if so, I sincerely hope everybody protests.

B.D.
Anchorage, Alaska

We two (Art, 20; Heather, 21) are fed up with the plastic, concrete and steel of the ratrace city and are venturing out in a van—with our cat, Star—to find a way of life that will allow us to give back to the earth all we've taken from her.

We're vegetarians and hope to end up running an organic farm but, right now, we hope that any people who want a couple of willing workers in exchange for a tank of gas and a meal or two will get in touch with us through MOTHER.

Art and Heather
Anywhere but here

Our purpose is to provide our community with a free school . . . a non-profit institution operated on a volunteer basis. It is our intention that the free school serve as both a nucleus for the community and a place in the Quad-Cities for fostering understanding through learning. We hope that the free school will provide a forum for all concepts in education and will serve as a bridge between "hip" and "straight" groups by providing a basis for further projects of intercommunity growth and communication.

At this time, we need: classroom space, teachers of all varieties, office help, students and everyone who wishes to be involved in his own way. All those interested, please contact us at:

Wildflowers
305 W. 15th St.
Davenport, Iowa 52803

We are looking for 10 or 20 acres of good, pure, inexpensive land . . . preferably in the U.S. or Southern Canada. It doesn't have to be farm land; we just need some good soil for growing food. If any of you good people out there could help us, we'd be ever so grateful.

Janyth J.
Michigan

We would like to join other couples or singles with children to form an intentional community and a totally radical freedom "school" in a rural setting . . . and we're not interested merely in an innovative school where malcontent establishment teachers with authoritarian attitudes can experiment with a 9 to 3 segment of their lives. In the community itself, we would aim for group relationships rather than the usual monogamous subgroupings which often occur in loosely structured communes.

Our plans are only in the formative stage, and we haven't yet worked out details. We simply wish to see how many people are willing to commit themselves, their love, talents, energy, time and money to such a scheme.

R.F.
Brooklyn

As a far-out over-30 romantic, I'd like to throw in with other people interested in a log cabin and bark wigwam community in New England or upstate New York. I see it as strictly traditionalist, with an atmosphere fit for studying and carrying on the languages and customs of the Iroquois League, the Mohicans and other Algonquian tribes of the Northeast, and the positive heritage of the frontier borderers personified by Cooper's Hawkeye.

At a central point on the land, I propose that we build a blockhouse to live in while we construct cabins and wigwams on other sites. Later the blockhouse can become a common storage house and editorial office for a sporadic gazette which would publish the results of our Indian and pioneer research and a few of our own pithy and relevant views about current events.

Another project I have in mind is the tracking of Northeastern mountain lions to determine, in the face of much rumor and controversy, whether they actually exist in this area.

"Flintlock"
Westfield, Mass.

I learned as a farm boy that if you want to get rid of a thistle, you have to pull it out by the roots. War and pollution are like that . . . we have to get rid of their roots: the profit motive. And I believe that it is possible to do just that and to create a money-less world where goods and services are free, laws utterly basic and super-rich power controls absent.

I hope to help to create a better world, and to show people what my Utopian hopes mean, by publishing a newsletter called THE LITTLE FREE PRESS. For information please write to:

Larry Johnson
715 E. 14th St.
Minneapolis, Minn. 55404

We have lived and worked on a dairy farm in Pine Plains, N.Y. for several months . . . but just haven't met anyone in the area of our own age. We're 20 and 23, have a two-year-old son, like life on the farm a lot and would really be pleased to find a similar family to visit, rap and be friends with.

We aren't yet into organic farming and encounter groups, but we'd like to get first hand information on those subjects . . . perhaps with the help of our new friends?

Frank Doscher
RD
Pine Plains, N.Y. 12567

We've just retired and want to use our time for something worthwhile, productive, creative, enjoyable and fulfilling. Would like to hear from others who might co-operate in forming a community—in South Oregon or at the edge of the Sierra National Forest—that God's will be done.

Have thought about starting with camp essentials and progressing to co-op buildings for library, spiritual orientation, music, art, health care, dining, tool and equipment storage, print shop, etc. Could have vacation or permanent homes, trailer space and facilities for guests.

We've spotted one very good land buy . . . three or four people with $5000 cash needed NOW to follow through on it. Immediate money or no, let us hear what you want and maybe we can accomplish our goal with a well-planned park-like community with roads on contour and open-space housing. Send a self-addressed, stamped envelope for reply, and write to us through MOTHER.

W.S.
Riverside, Calif.

I'm a young woman searching for an alternative to city life. I'd like to locate a family in the vicinity of Plainfield, Vermont, who would be willing to give me informal experience in farming and the kitchen arts during July and August. I don't want salary, room or board . . . just an education. I will appreciate all efforts made on my behalf and hope to return the favor . . . perhaps by leading a sane, ecological and happy life.

Deborah K.
Franklin Square, N.Y.

This family of five is moving to British Columbia within the next few months and would like to make contact with others already there or on their way. Interests: organic gardening, free schools and the whole back-to-the-land movement.

James M.
Manchester, Conn.

I've got a great idea for a magazine. If a bunch of people will write or draw up a creation, then make 100 copies of it and send them to me with 25 cents, I'll put them together and we'll have a magazine . . . which I think I'll call STRANGE LOCOMOTION (in deference to the strange things inside that make each of us tick).

When I get all the pages together, I'll send two copies of the magazine to everyone who contributed. The money, by the way, is just for mailing costs.

Hopefully, the piece will have to do with common feelings toward the area I'm sorta interested in, whatever you interpret that to be, or it can just be a joyous outpouring of the heart, or a lot of molecules in some strange position. But the basic thing right now is to give me some feedback on this. Soon.

Professor X.
Sarasota

I've got land for sale . . . 107 acres in Greenwood, West Virginia, complete with four acres of good fertile bottom land (unfarmed for many years), a large old house in need of repair, a well, and a creek. All for $6,200.

Robert K. Jacobsohn
910 Milburn Court
Baldwin, N.Y. 11510

THAT we are three—Ted (24), Chris (21), Sonya (1)—we're sure. WHY we are only three, living in frustration in a haphazard community, we're no longer sure. Together we have more than what is essential for existence, but we're not enough.

We want to meet with others who wish to create an intentional farming community that can develop historically. We have two thousand dollars for land, and we'd prefer to locate in New York State. If you're of like mind, write to us. We're through just waiting and thinking.

Ted, Chris and Sonya Sotinsky
28 Hazel St.
Binghamton, N.Y. 13905

I don't want to go to war, so somebody out there can help me. I'd like to find a place . . . a long way from civilization . . . that needs a 19-year-old hard worker.

I don't care if it's way out in the wilderness. I have lived in two communes, and I could easily fit into that sort of life again. Hope someone can help.

Chuck
Missouri

Anyone who is interested in forming a co-operative organic farming community in either the British Isles or Europe, or who has information regarding such a community . . . please write to me.

John D.
Los Angeles

I'm working as a social worker in a rather provincial central Virginia county, and one of my tasks is as a probation officer for teenage offenders against the law (i.e., I try to keep them out of prison). For the benefit of my young wards, I would be very much interested if any of MOTHER's readers could send me information on alternatives to the stiffling system here.

Robert T.
Buckingham, Va.

Widower seeking to correspond with any widow or dicorcee—age 35 to 50, with one or two children—who shares my view that there is a definite need for both mom and dad in today's complex pattern of living.

If you are aware of the constant vulnerability of the one-parent family and firmly believe that a rural, organic, simple (but not primitive) environment is the ideal setting in which to raise children, I would like to hear from you.

A.N.
Maine

We'd like to encourage others interested in independent income that only benefits the environment and takes advantage of no one. We ourselves distribute organic, biodegradable (in 72 hours) and low/non phosphate cleaning products to help finance our homesteading venture. So far, we have our land partly paid for and have begun to build a cabin.

We can offer products to folks in The Berkely-Oakland area and can arrange to supply distributors in the Santa Rosa vicinity.

Susan and Michael
Berkely, Calif.

I've been taking a look around at contemporary (within the last 40 years) housing. Generally, I think that it's insensitive to human and organic need. It ignores, for the most part, any relation to site and landscape. It is dull, boring or downright ugly. It's demoralizing! It affects people's heads.

Alright, a lot of people agree . . . and they are building, planning, dreaming, designing, sweating, thinking, watching their dreams rise from the earth and sometimes fall with a frustrating crash.

I'd like to co-ordinate information and ideas for these people . . . for any people interested in housing alternatives. I want any relevant material—from the specific details of how to build an adobe hut to someone's ideas for the development of a whole city. I want to be in contact with builders, designers, architects, landscapers, city planners, thinkers . . . people recognized as professionals and non-professionals doing it.

If you're building or dreaming, have new ideas or experiences that didn't work out, send what you can to me (including comments) and we'll try to get it on.

D.L.
Victoria, B.C.

I am a widow interested in maintaining the symbiotic processes by which the earth and her inhabitants live. I have a secluded 40-acre farm adjoining several sections of wild native timberland in a "hub" area of Washington. Eventually, the farm will be totally organic, but right now there is too much to do and too little time. I need help!

If anyone is interested in my project or wants to raise a garden, fish the stream, spend the summer or just stop off and rest a while . . . they're welcome (no drinkers or drug users, though). I want conversation, exchange of ideas, a companionable helping hand with one chore or another and whatever else people might want to contribute to the welfare of the farm. To the right couple, I'll offer a permanent home.

Of course, I'd expect anyone who comes to be civil- -if not affectionate- -to the variety of domestic animals who constitute my family.

Leora S.
Washington

I'm looking for farm work as soon as possible . . . absolutely anywhere.

Lois C.
New Brunswick

We think we can offer a good opportunity to someone making a transition from city to country life. We're looking for a couple or small family to rent a modest, wood-heated house at $75 a month . . . not mere tenants, but people actively interested in sharing organic gardening, fishing, sports, conversations on long winter evenings and the like.

Our small farm overlooks Kootenay Lake and the mountains of British Columbia and is near an elementary school and many summer and winter outdoor activities. We're former city dwellers ourselves (ages 3, 10, 12 and around 40) who've been here for three years and we're eager to share what we've learned with newcomers or to learn from others who are more experienced. No drugs, though, please . . . we only want people turned on by nature.

The R's
British Columbia

I've been working with ferro-cement boat builders and learning how to build hulls from wood, wire, rods and mortar. I would like to help organize and work in a commune of people whose aim is to build boats . . . perhaps to live on.

I've gained a lot of knowledge about building hulls, although I still don't know much about rigging, sails, motors, interiors or even navigation and sailing. I HAVE learned that used materials such as scaffolding, frames, braces and strongbacks are easy to get ahold of from boatyards. And I've heard of one co-op for cement boat builders in Long Beach that's doing good things . . . so there's no reason why another shouldn't succeed.

Steve F.
Los Angeles

My wife and I are retiring in 1972 to five-and-a-half acres of land 150 miles from Salt Lake City, in southeastern Utah where it is nice and dry with plenty of sunshine.

We would like to meet other people who wish to share this life with us. Age is no barrier . . . they must merely want to live a clean, simple and organic way of life. People interested in crafts- -like leatherwork, ceramics and woodwork- -would be most welcome. We are hoping to be as self-sufficient as possible and plan to set up a roadside shop.

There's more land for sale next to ours. Irrigation is good, and a city water supply runs to the property. Power lines are laid, the highway is near and a small town of about 1,000 is three miles away.

C.E.W.
Salt Lake City

I recently moved to a remote farm in West Virginia with my wife and baby. I'm just getting settled and am eager to meet other folks who may be close enough to share food purchases, develop co-operative stores or whatever. Also we contemplate enlarging our place to include several families, and if anyone would like to visit, that would be just fine, as long as they get in touch first.

We would be glad to see anyone seriously interested in sharing land or exchanging local information, food, etc.

Mike G.
West Virginia

I am a high school student about to start the Darien High School Free Press. I've gathered co-workers and local talent for our newspaper, but what I need now is advice from fellow editors on such things as equipment, techniques and rentals. I'd appreciate any advice, and would be glad to print a few good words about you and to put you on our mailing list.

M. Collingwood
160 Ridge Acres
Darien, Conn. 06920

I am a recent high school graduate who will soon be doing some self-styled traveling and learning. I would like information on any southeastern U.S. commune or intentional community that might accept me. I am willing to do any type of work and to help in every way possible. All information will be greatly appreciated . . . all letters answered.

N.J.D.
Southeastern United States

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more contact

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Lookin' for a home . . . tired of landlords, dead cities and public schools for the kids. Is there a commune or collective anywhere with space for a 33-year-old woman and four sons (ages 8,9,11 and 15)?

I've a small dependable monthly income and have long ago put aside the consumer trip in favor of a more simple life style. If you're up tight, you won't like us . . . otherwise, please drop us a line through MOTHER.

Jinna
San Diego, Calif.

We'd like to hear from people who are now ready to build a close, caring, sharing, experimental community with us on our 40 acres in the Ozarks (see our CONTACT letter in MOTHER NO. 8). We want to live as a family—not in isolated twosomes or co-ops—with people who don't expect to walk into a ready-made Utopia but who are willing to work at local jobs in order to finish setting up the organic farmstead and store; who want to develop a free, growing, self-sufficient, alternative culture; who know what they wish to do with themselves and in what ways they wish to grow; and who want to begin a life-long commitment to a community.

If you don't share these goals, please don't write; if you do, write soon telling us about yourselves, your ideas about community life and when you can visit us for screening, planning and a trail acceptance.

Norman and Beverly
Missouri

Things are really starting to come together at EARTHGAARD, a college of the Nordenfjord World University. Now we'd like to know if there are any save-the-world type people on their way to Europe who wouldn't mind paying the paltry sum we charge (almost enough to cover expenses, not salaries) and who would like to work co-operatively on their own environmental projects or to help others with theirs. If interested, write to:

EARTHGAARD
Box 12
9690-Fjerritslev
Denmark

Lookin' for a farm . . . not to own, just to work on. I'm available for as long as I'm needed, and all I want is room and board and the chance to learn. If you can help or know of anyone else who can, please let me know.

-Randy R.
Levittown, Pa.

Friend Fran and I have a problem. We like everything homemade . . . and we like spaghetti. Does anybody out there know where we can buy a small, inexpensive, hand-operated spaghetti press?

Alice
Napoleon, Missouri

This fall, I will be traveling around western Europe and the Mediterranean with Israel as my final goal. I'm going essentially as a student attempting to augment my recently acquired B.F.A.

While abroad, I want to make contact with people of like interest who are living organically and really doing something with their environment . . . but I'm somewhat at a loss as to how I can locate such groups and individuals. Can anyone offer some help?

Clayton K.
Idaho

We at Career Services of Temple University are interested in exploring an alternative dimension in career planning.

Recently, many of our students have expressed a desire to explore something other than the traditional career paths. Changing life styles and values have led these students to look for jobs which promote social change—teaching in free schools, building new communities, civil rights work and draft counseling.

Because our resources in these areas are limited, we are initiating a new project in order to satisfy the rising demand for alternative careers. Obviously the first step is to accumulate a body of literature so that our staff can counsel and inform Temple students more effectively in this area. We'd appreciate any information that MOTHER's readers can give us.

Peter H. Jacobus, Career Counselor
Temple University
Philadelphia, Pa. 19122

I'm a 28-year-old biology teacher trying to live what he teaches about Mother Earth. I have 15 acres of productive land in southeastern Louisiana on which I'm now building a home. With that done in August, I'll begin to create a self-sufficient homestead. I'd like to share the farm and the pleasures of building it with someone of similar goals.

L.B.
Lake Charles, La.

As rural commune members, we'd like to meet with groups in or near New York City who want to hear about our experiences with economic sharing, communal child rearing, rural living, multiple relationships, organic gardening and the hassles and joys of living together.

Helene
New York

I'm a 39-year-old single male who has kicked the rat race and been living in a home-made camper in the National Forests for some time. I've got lots of love and compassion for my fellow humans, and now I'd like to find a group to throw in with.

I'm good with hand and power tools, can build much (campers, boats, buildings) out of little, like to work in that "new" material called wood, and have some great ideas about building with cement. In all, my mechanical ability is excellent . . . and I was raised on a farm so I know something about that.

If anyone has need of a person like me, please write and let me know. I'm open to suggestions.

Bruce E. McClung
P.O. Box 1682
Yakima, Washington 98907

We're in the process of starting an herb store in the Corvallis, Oregon, area . . . but could use more gatherers. If you are into herbs and would like to help supply us, please write and let us know what is available to you. We're also interested in trading herbs that we gather here for those grown in different parts of the country.

The herb trip is just one facet of our spiritual community . . . we're also thinking of setting up our own church and would appreciate any information on such an undertaking (e.g. legal angles).

Chief Cloud's Medicine Show
Oregon

We're trying to find a place deep in Canada (or the U.S. if far enough away from civilization) to build a cabin and root cellar, to plant a garden and to hunt, fish and live as simply and self-sufficiently as possible. Ideally, we'd like to buy about 10 acres or so of a larger section of land owned by people like us . . . happy, healthy and simple. And we'd really be into a community free school.

We have 2¾ children, a VW bus, tools, lots of experience in simple living, about $300 and the ability and willingness to do a lot of hard work.

D. Ford
Ontario

I'm a 31-year-old who grew up in the country and has it strong to return. I'd like to correspond with existing communities looking for members or with people interested in starting a good solid thing somewhere between New York State and North Carolina. Am very interested in small livestock, gardens and crafts. Let's talk.

Ned D.
Philadelphia Pa.

We're on a search for more information on Twin-Oaks-type communities (either planned or started), on conferences dealing with the formation of a Walden Two community and on visiting existing communes. Any contacts with people who are knowledgeable on these subjects will be appreciated.

Jean T.
Huntington Beach, Calif.

Been reading too long . . . I need some first hand experience. If anyone needs a hand and is willing to tolerate a rank beginner, I very much want to work on an organic produce farm or homestead during the summer of 1972. I'd prefer the midwest as that is where I hope to have a farm someday.

P.T.
Wilmore, Kansas

After obtaining a degree and company positions, I decided to do creative and unrestrictive work related to farming . . . and am now doing it thanks to a genuine relationship with a warm farm family.

I own a spacious home—in a natural setting along the Mississippi River—where I live with two young men and a young lady with communal aspirations. We desire a loving, sensitive life style in an open atmosphere, and we'd like to rap with young people who might wish to share a living experience with us.

Bill E.
Sauk Rapids, Minn.

Early this fall, I'll be traveling to the San Francisco Bay area with the intention of staying there for a few months and acquainting myself with the area. Since I'm interested in natural living, I'm trying to locate an organically-oriented commune or farm where I can reside during my stay. I prefer a libertarian, secular commune or no more than 8 to 10 people, and I'd like to have a private room.

I've lived in rural surroundings most of my life and can contribute the experience that I've gained in such things as organic gardening. I'm also willing to pay a limited rent.

If you have a commune or farm similar to what I have described and are willing to take me in for a few months, please write.

David
Lewisburg, Pa.

We (a family of three) have been tropical homesteaders for twelve years now and were Vermont homesteaders for a decade before that. We would happily share our homestead on a family, commune or community basis—depending on the person, desire and experience. And we welcome visitors.

We have a few restrictions, though.No drugs, please, and vegetarians only (fish and eggs accepted) . . . we have a tropical 365-day growing season, and we're trying to save the wildlife. People interested should be under the religious discipline and guidance of one of the world's major religions and must be willing to live in the wilderness . . . we are a three day's journey on foot or mule to the nearest road (there is bush air service, but no town, T.V., etc).

We hope to hear from people, and we'll do all we can to help anyone who wants to become rooted in this peaceful, green environment. Any pioneers left in America?

Jan, Harry and Becca
Selva Lacandona, Mexico

I need someone to cut trees for fence posts and to put up a fence. I can't pay, but I can offer the use of a rough but livable mountain cabin and food from our garden.

Anyone interested should feel comfortable alone, love nature and have enough money for round trip transportation and incidentals.

Mishcka
Vermont

Having quit college after three years, I'm living with my parents for the summer, mucking out stables (which I enjoy doing) and jogging harness horses to try to save money . . . am on my way to Asgard in Denmark to learn more about pottery, about the land, about people and about me. I hope I'm headed toward the kind of life I ache to lead, surrounded by the kind of things I love—lots and lots of animals, fresh air, natural food and loving friends.

In the meantime, I've GOT to talk with others who love land and animals, and who take food and life and caring very seriously. If you do, will you write so I can begin to think there's someone real out there to talk to?

Kathy Black
R.D.
Chester Springs, Pa. 19425

The first international gathering of communes will take place in the French Alps from September 1 to 15, 1971. Here individual communes can become aware of the international dimension of their movement and can make valuable contacts with one another. Each commune is invited to send one or more members . . . participants should bring their own tents and gear, fend for themselves (pioneer style) and organize their own entertainment.

Co-ordination sessions in English and French will deal with exchange of agricultural and other produce, loan of skilled personnel and equipment, free media, mobile voluntary work teams, pooling of technical and legal information, twinning of urban and rural communes, co-operative outlets for crafts, and formation of national commune federations.

Exact location and other details will be communicated directly to participants. Interested communes please write, enclosing two international postal reply coupons, to:

E. Petrakis
Cite S.N.C.F. No. 7 de St. Marcellin
VEYNES-05-FRANCE

Mission School of Craft is a gestating craft-oriented community with a 36-acre piece of wilderness on the (thanks be, it's clean) Suwanee River in north central Florida, a fairly well thought-out dream and a fair collection of tools, books and empathetic and sympathetic friends.

We need people who are willing (even anxious) and able to work toward self realization and world improvement. Those with skills, education, experience and/or money are, of course, welcome . . . but the only requisite is usable intent and energy. M.S.C. is a perpetual workshop in human relations, essentially self-contained, self-supporting and self-seeking. More than simply craft-oriented, we wish to apply a craftsman's attitude and pride to all endeavors—gardening, food preparation and preservation, teaching, learning . . . in short, living.

Don't write just to receive mail or visit just to visit . . . but if you're seriously interested, come on write to:

Adam Turtle
Mission School of Craft
at "Goshen"
Rt. No. 4 Box 171
Live Oak, Fla. 32060

Are you ready to give up the soft, carefree life of the Establishment in favor of the sweat, toil and (sometimes) tears of a community? If so, we'd like to hear from you.

We have a hell-or-high-water date of July 4, 1972 for occupation of a proposed site in southwestern United States where we plan to build a community based on total organic farming, some commercial on-premises work, group influence over children, a gradual separation from socio-economic ties with the Establishment and, most importantly, "The Oath of THE AURORIANS". . . a creed which spells out the code of mutual respect by which we intend to live.

We'd be happy to send a thirty page booklet entitled "THE AURORIANS" upon request (a contribution to cover printing and mailing would be appreciated but isn't demanded). Membership in the AURORIAN community is open to all . . . as many as possible.

"Deniston"
for THE AURORIANS

GOD'S COUNTRY, INC. is dedicated to uniting young people (ages 5 through 18) with life, God and man by showing and teaching them that all life is simple, real and purposeful and that nothing injurious to the health or welfare of life should be allowed in God's Country . . . no alcohol, tobacco, drugs, guns, pollutants, etc.

GOD'S COUNTRY, INC. considers every person to be an ambassador in spreading the word of our purposes, needs and goals and in helping to remove the need for false images and wasted lives.

One tangible thing that we're doing now is building a house out of junk—usable materials from historical sites—to become part of a monument to the period in which we live.

If you can help us, if you seek more information or if you want to join us at our weekly meetings, please contact:

GOD'S COUNTRY, INC.
4626 Hollywood Blvd.
Los Angeles, Calif. 90027

Awareness of Mother Earth is currently generating vast amounts of energy into publications, communes, Earth Days and air quality standards. The Central Clearing House intends to function as a channeling agency for the diverse energies that develop in this region . . . we're simply a clearing house for information about ecology. We contact people and agencies, supply stuff directly, have a library and bibliography of ecological material, and maintain an office to receive reports of environmental problems and to research these problems so that we can begin steps to remedy or fight them.

Specifically, we've been into a number of things—trying to get a recycling program going, sponsoring a festival of film and music, publicizing the toxaphene pesticide problem and fighting a power plant complex that is ripping off the Indians as well as the land, water and air of Arizona and New Mexico.

The Central Clearing House
107 Cienega
Santa Fe, New Mexico 87501

The newly formed Conejo Environmental League has established a Resource Center at Treeland which operates as a lending library and distribution center . . . for individuals, clubs, organizations. We try particularly to assist teachers, students and youth group leaders seeking information about our environment.

Conejo Environmental League
Thousand Oaks, Calif.

Last winter I got down some cash and got me a lovely 160 acres in Ontario with my pal and his little family. I am camping here now, feeling out a building location, collecting field stone, cutting logs, talking to my neighbors and just listening to the wind. All promises to go well, and we'll build a log-stone cabin in the late spring of next year so's we can begin farming and all.

Now . . . for the next three seasons, I'd like to see myself working on someone's homestead, farm or down-to-earth commune. I've seen 25 moons, am strong, have a black beard, seem nice and happy and could really dig working and learning.

Richard
Keego Harbor, Mich.

(continued on page 120)

ACCESS

Being some good things we want to share. Money won't buy a spot in ACCESS, but suggestions are invited. What do YOU want to share?

MAINE TIMES
13 Main Street
Topsham, Maine 04915

This is only the best damn weekly newspaper in the country. There's no other way to describe MAINE TIMES. Remember "Big Story" on the radio back in the '50's? Remember the 1930-40s movies about "battling newspapermen"? Remember all those books and Saturday Evening Post articles about the power of the press? Well MAINE TIMES is all that—and more—live and for real right now.

MAINE TIMES is dependent upon ad revenue just like any other modern paper . . . but it sure don't scratch nobody's back to get that money. Instead, it does what all papers *should* do . . . and what all con themselves into *believing* they do . . . but what no other newspaper in North America *does:* MAINE TIMES writes succinct, hard-hitting TRUE articles and exposés about the relevant problems of our time: Robber baron lumber companies that rape the land; rip-off potato packers that force growers out of business and steal their farms; a state and federal government that knowingly and willfully destroys American Indian culture; unemployment; inflation; the squeeze on little folks.

Every week, when the new issue of MAINE TIMES comes in, and I see just how good it is all over again, I get hollerin' mad . . . mad that every state doesn't have at least one newspaper as good as MAINE TIMES. Because, I'm convinced that if we only had 49 more as good as this one . . . well, we just might be able to make this country safe for decent folks of good will one more once.

A year's supply of fresh, new MAINE TIMES is only $7.00 and that's a small price to pay for 52 reminders that someone, indeed, really and truly *does* care.

* * *

TOOMEY J. GAZETTE
Box 149
Chagrin Falls, Ohio 44022

This yearly "journal for the severely disabled" just might be kind of valuable to a few folks without physical handicaps. Next time you start feeling sorry for yourself because you can't afford that farm yet or you haven't got enough money to make it to Europe or you've lost your job . . . sit yourself down with TJG and read all about the quadriplegics who own and operate their own home businesses or the fellow—paralyzed from the waist down—who's traveling around the world alone.

And if you *are* handicapped in any way you're going to find TJG's tips on wheelchair modifications, rocking beds, specially adapted automobiles and vans, portable lungs, etc. a godsend. Lots of first-hand articles and names and addresses of folks who've faced your problems and licked 'em.

TJG isn't for sale but you can get a copy for a tax-deductible donation of $3.00 if you're not disabled, $1.00 if you are.

* * *

NATURAL FOOD AND FARMING
P. O. Box 210M
Atlanta, Texas 75551

The Natural Food Associates is a national, non-profit educational organization and this is the group's monthly magazine. It's not a whole lot of magazine for the money but it carries a lot of ads I've never seen anywhere else for comfrey, organic beef, choice Saskatchewan wild rose hips, aloe vera and pure cane sorghum. Beatrice Trum Hunter, Helen Philbrick and other "old line" natural food experts publish in this one . . . but, again, it's not a very fat magazine for $5.00 a year.

* * *

SOURCE
2115 "S" Street N.W.
Washington, D.C. 20008

This is one very large undertaking. What these folks have set out to do, simply, is to put everything and everybody you need to change your life in a meaningful way . . . at your fingertips. The final directory is expected to run to 500 pages printed in 13 sections and you can get the whole shebang as it's issued for the paltry sum of $8.00. The beginning looks solid and extremely well organized and the finished product could be very exciting indeed. If you've got the bread, get your order down now and help finance this most worthwhile undertaking. If you haven't got the loot, bug your local library until *it* puts an order down.

* * *

THE BEN MEADOWS COMPANY
P. O. Box 8377, Station F
Atlanta, Georgia 30306

The Ben Meadows Company is a forestry and engineering supply house and the folks there put out an incredible catalog of really high-quality wilderness tools. For example, they carry over a dozen different patterns of axes, each in several weights. They also have a lot of good pruning and tree working tools, compasses, surveying instruments and forest fire fighting equipment.

The Ben Meadows catalog costs $3.00 but it's worth it since it's about the size of a telephone book and is packed with good things. Besides, your three smackers will be refunded with your first order for $25.00 or more.

* * *

DO IT NOW FOUNDATION
P. O. Box 3573
Hollywood, California 90028

If you've got a drug problem or just need information so you *won't get* a drug problem or you know someone in either situation, turn on to DO IT NOW. These folks have been through it all and they aren't going to put you down, punish you or turn you over to a narc. The DO IT NOW people are here to help and their *Conscientious Guide to Drug Abuse,* for only 75¢ will set you straight on both the good and bad of dope in a hurry. For another dollar, DO IT NOW will send you six copies (one year) of *Vibrations* . . . which will give you the straight skinny on all the new junk and crap as it hits the streets. If you want The Word from folks who know—first hand—that Speed Kills, get in touch with DO IT NOW. Do it now.

* * *

NORTHWEST PASSAGE
Box 105, So. Bellingham Station
Bellingham, Washington 98225

A "fortnightly journal of ecology, politics, the arts and good healthy livin'" that makes mighty fine reading 26 times a year. NORTHWEST PASSAGE maintains a standard of informative excellence that few underground papers seem capable of visualizing. Always full of good features on the environment, American Indian heritage, low-cost living and other "new life" essentials. The recipe column in NORTHWEST PASSAGE *(Out of the Molasses Jug)* is a whole lifestyle in itself and I'm surprised that other underground papers haven't picked it up for regular reprinting.

Get yer NORTHWEST PASSAGE for only $6.00 per year.

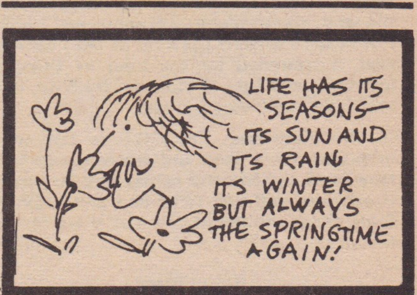
* * *

THE ORGANIC TRAVELER
P. Lion & Co.
Box 416-ME
N. Hollywood, California 91603

If you're a New Life people and you're on the road with pack or van . . . the AAA guides just don't make it for you. What you want is sumpin' that'll take you by the paw and introduce you to all the handmade goods, natural foods and friendly folks on down the road. THE ORGANIC TRAVELER is a start in that direction.

This first book does the job up and down the west coast and we're told that it'll be updated regularly and that regional guides to other areas of the country are on the way. There seems to be a genuine effort to list only mellow people and give no mention at all to rip-off wolves in long-haired sheep's clothing. For two bucks, that ain't bad.

* * *



MORE DEAR MOTHER,

(continued from page 90)

Once my husband was a TV director . . . then he decided to go back to college (we forget why, now). After a year of that, we could no longer see what our goals and values were so off we took. Packed our VW sedan, piled our two toddlers in and headed for the West.

We had worked one summer on my uncle's farm in Arizona, but that's all the experience we'd had on the land. We couldn't find anything just right until we lucked into an interview with a five-state cattle company that hired us on the spot to run a ranch for them (200-400 head of cattle). Most ranchers in our area are so desperate for help that they'll hire almost anyone who can tell a cow from a bull . . . and they prefer couples to single people.

We were lucky and were given a three bedroom house on our "own" little ranch 3,000 acres), a milk cow, a horse and a steer. Now we're getting paid to learn how to cowboy, run a ranch, manage the land and put to use what we understand of ecology.

We've got lots of hints for anyone who wants to take up the dying art of cowboying. For us it's the only kind of life . . . just glad we didn't waste more time doing something else. Would you like some articles on cattle-ranching, old-time cowboying and related subjects?

Linda Ferguson
Hermosa, S.D.

I surely would.—MOTHER.

Tomorrow we're beginning our search for a new life. We are indebted to you for making this possible because our letter in your CONTACT column resulted in 50 responses . . . and we met some lovely people.

Sometime in the near future, we hope to be able to write about the success of our search.

Carl and Lin Burk
Hughesville, Pa.

I would like to start a re-cycling station in central Oklahoma for bottles and stuff, but have no idea where to send them once they are collected.

Alan Aikins
Norman, Okla.

I don't recall filing away any information from your locality which would answer your question, Alan . . . but there are ways to find such addresses. First, call the newspapers in Oklahoma City . . . they should know (and publish) where bottles and cans and paper can be turned into dollars and cents. The alternative press in your area will CERTAINLY be carrying information like this as a regular feature. Hope you can get something going.—MOTHER.

I wonder if you can help me get in touch with someone who has fruiting beech trees? I'd like to buy a couple of pounds of seeds to send to my mom . . . she hasn't had any since she was a girl. Thanks in advance.

Diann Kurzenberger
Albuquerque, N.M.

Lots of stores and co-ops (see CONTACT in this and other issues) sell organically grown nuts, and the Savage Farm Nursery (P.O. Box 125-OG, McMinnville, Tenn. 37110) will sell you a reasonably priced sapling American beech . . . but I don't know about seeds. Can any MOTHER readers come up with a reliable seed source for Diann?—MOTHER.

We plan to move to British Columbia in a year with another family . . . so here's $9 Amerikan to pay for two years of MOTHER. Know she'll help us out.

I'm into ZPG (Zero Population Growth) now . . . sometimes seems like there's no hope and we're headed for ecological collapse. Is man Mother Earth's cancer?

Rev. Dr. T.J. Krest
Denver, Colo.

We are 50-year-olds with five children and 1½ acres where we raise mushrooms, raspberries and strawberries . . . but I'd like to have more land and be closer to self-sufficiency. In fact, I'm ready to homestead (British Columbia?) right now.

We've been organic gardeners for 20 years, so we have a lot of know-how. I've got that old pioneer spirit . . . my family were homesteaders back when, and I miss the uncomplicated life of my childhood.

Just a thought . . . why not feature a corner of your magazine for short autobiographies of homesteaders. Who knows? Perhaps some collaborations could result . . . or at least some warm friendships.

Thurlan Anderson
Fielding, Utah

Thanks for the idea, Thurlan . . . who wants to be first?—MOTHER.

I graduate in December and want to live in Idaho as soon as I can after that . . . I've got some land there near Lake Pend Oreille. For the past two years I've been piecing together info on getting back to the good life . . . now it seems like all I have to research is MOTHER!

I was really intrigued by your article on herbs in MOTHER NO. 8 and wondered how well they'd grow in an ecosystem like northern Idaho's.

Greg Leiser
Davis, Calif.

Louise Doole's HERBS FOR HEALTH ($2.00 from MOTHER's bookshelf) claims that herbs aren't the least bit particular about whether their soil is rich or poor . . . in fact, some of them don't even demand full sunlight. I'm sure they probably hate polluted air and water as much as other plants and I'd think Idaho's ecosystem, although a little chilly for some, would be as good to them as any.

The Doole book is a good one for the beginning grower and, if you're into hunting wild herbs, STALKING THE HEALTHFUL HERBS by Euell Gibbons is a nice handbook.—MOTHER.

My wife and I are dedicated to the teaching profession . . . maybe we can help kids get something worthwhile from this country's stilted educational system. We're going to do whatever we can . . . even if that finally means dropping out, finding a quiet place for ourselves and as many children as we can possibly support and teaching them the necessary skills for survival in whatever world they may be left with by our generation.

I was especially interested in your article on the steam car in MOTHER No. 1. I've heard of a man on the coast of California who would convert my car to steam . . . he also has kits, etc. for those who want to do it themselves. If I can find his name and address, I'll send them along.

James G. Rea
Lawton, Ohio

Thanks, James, and I'd like to know more about the steam-car man . . . there are some letters in MOTHER No. 6 giving addresses of people who build or supply parts for steam engines, but no one in California. Good luck in your teaching . . . we all need folks like you.—MOTHER.

I'm a high school ecology-conservation instructor, and your magazine has added much to my classes. If you know of any good organic gardening classes or course programs, please forward the information. I'd like to tie the material in with a teaching unit on alternative life styles.

J.F. Reilly
Cleveland Hts., Ohio

Best place I can send you is ORGANIC GARDENING (60 cents per monthly issue from Rodale Press, 33 East Minor St., Emmaus, Pa. 18049). And you can't beat THE ENCYCLOPEDIA OF ORGANIC GARDENING (available from MOTHER for $9.95) for a one volume "course."—MOTHER.

People with aesthetic instincts and little money . . . can find lots of perfectly wonderful things around that other people have discarded. Many second-hand materials can be re-decorated or re-assembled to make entirely new creations.

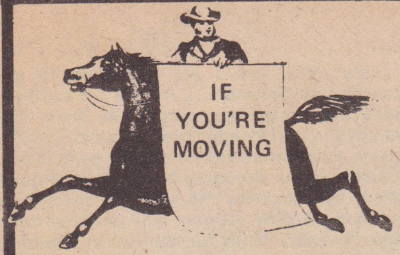
For instance, you can find gold-colored, round filagreed metal objects that make wonderful candle holders. And anyone handy at cutting tin cans can achieve the same effect . . . just filagree the can, paint it black or gold and put a candle in it. It's an impressive decoration.

Old bottles can be cut to make other useful things and some bottles themselves come in intriguing colors and shapes . . . for flowers, decoration or simply collection (new bottles become old bottles in time and may prove to be valuable). Bottles that come in rafia holders can be removed and the holders used as baskets for candy, shells or whatever.

One time I took a 20 cent globe, put a coffee can lid on the bottom, added a fancy lift-off top, filled with soap for the bathroom . . . and got lots of wondering compliments.

If we look, there's no telling what we can contrive for pennies . . . and the more we practice, the more apt we become.

Anna Fry
Colorado



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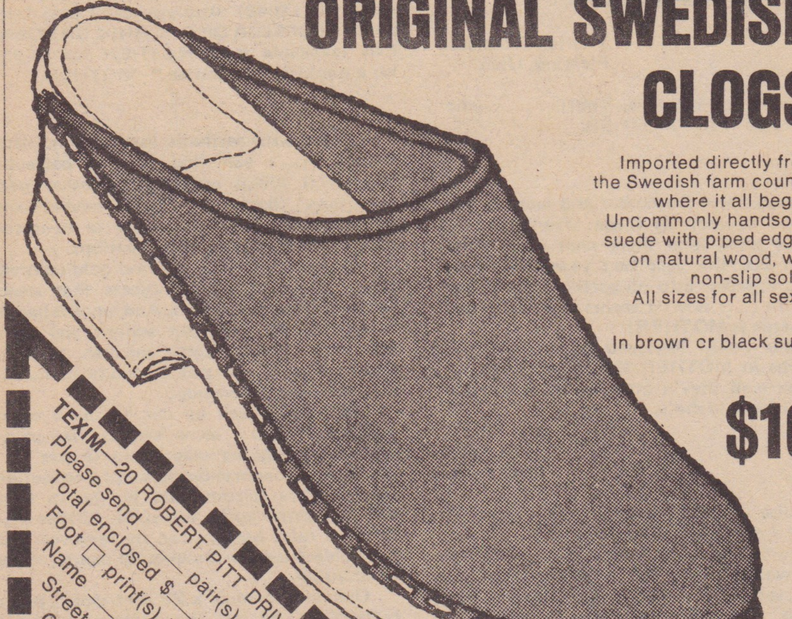

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I am writing a book about women filmmakers. If you write, produce, direct, do camera or sound, animation, edit, computer films or whatever . . . please send your name and address. The book will not include actresses or women in TV or videotape.

Sharon Smith
3927½ Flower Dr.
Los Angeles, California 90037

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*author of The Prize; The Chapman Report; The Man; The 7 Minutes

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COMMUNES, U.S.A.—comprehensive guide to existing communes (Religious, Scientific, Hip, Psychedelic, Group Marriage), Extensive bibliographies, List of Alternative Organizations, $4.00. Alternatives—M, Drawer A, San Francisco, 94131.

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THE HOMESTEADER — Bimonthly paper. How to live off the land, handcrafts. $1.00/year. Oxford, N.Y. 13829

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GREEN REVOLUTION: Monthly Journal of the School of Living. Deals with decentralization, rural revival, natural living, land tenure questions and land trusts, ecology, nonviolent community. Subscription $4 one year, from GREEN REVOLUTION, Rt. 1, Box 129, Freeland, Md. 21053. Sample copy on request.

NOMAD/TROGLODYTE information exchange: equipment, "squat-spots," foraging, migrations, contacts, self-liberation ways; to libertarian nomad/trog in trade for life-style description; to anyone for $2. Preform tmen, Box 607, Grants Pass, OR 97526.

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HOMESTEADER'S BIBLIOGRAPHY. A list of books from regional and state libraries that we found helpful on our homestead—General Homesteading and Subsistance Farming, Gardening, Livestock, Beekeeping, Buildings, Nutrition, etc. $1 for hundreds of titles. Elsie Evelsizer, Winterthur Goat Farm, R.2, Forrest, Ill. 61741.

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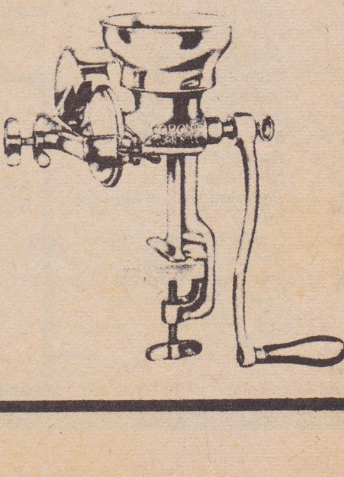

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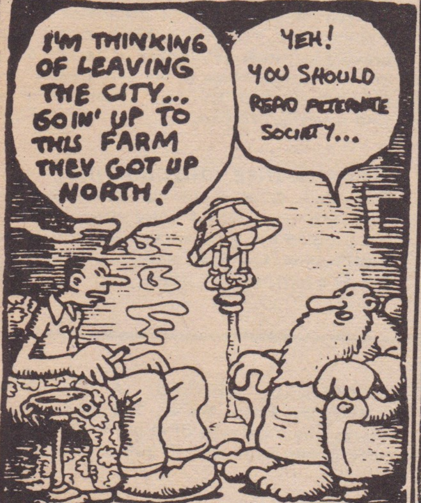
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(continued from page 113)

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MOTHER'S

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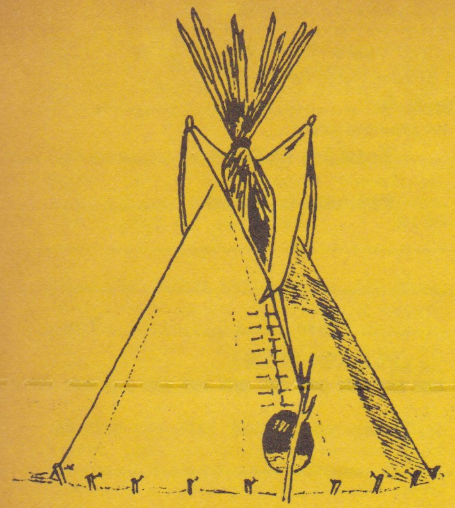

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